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No. 21

SUPREME COURT OF THE UNITED STATES

October Term, 1946

CHAMPLIN REFINING COMPANY, *Appellant,*

vs.

UNITED STATES OF AMERICA AND INTERSTATE COMMERCE COMMISSION.

PETITION for REHEARING.

HARRY O. GLASSER,
DAN MOODY,
Attorneys for Petitioner.

TABLE OF CASES.

PAGE

Atlantic Coast Line v. Standard Oil Co., 275 U. S. 257, 72 L. ed. 270 ..... 1, 15

General Oil Co. v. Crain, 209 U. S. 211, 52 L. ed. 754 ..... 1, 15, 18, 19

Interstate Commerce Act, Section 19a 23, 24, 25

Interstate Commerce Commission v. Baltimore and Ohio Railroad Co., 145 U. S. 263 23

Interstate Commerce Commission v. Cincinnati, N. O. & T. P. R. Co., 167 U. S. 479 23

National Surety Company v. Jarrett, et al., 95 W. Va. 420, 121 S. E. 291, 36 A. L. R. 1171 23

Pennsylvania R. R. v. Public Utilities Commission, 298 U. S. 170, 80 L. ed. 1130 ..... 1, 11, 12, 15, 17

Petroleum Rail Shippers Association v. Alton & Southern Railway, 243 I. C. C. 589 7

Pipe Line Cases, 234 U. S. 548, 58 L. ed. 1459 .. 2, 8, 10, 21, 22

Texas and Pacific Railway Co. v. Interstate Commerce Commission, 162 U. S. 197, 210 23

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vs.

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PETITION *for* REHEARING.

The Champlin Company complains of the opinion of the Court of November 18, 1946,

(*a*) for erroneous interpretation of uncontroverted facts, to be presently considered;

(*b*) for erroneous conclusions of law which will be noted *infra;*

(*c*) for the failure to note, or distinguish, controlling decisions of this court, viz: *Atlantic Coast Line* v. *Standard Oil Co.*, 275 U. S. 257, 72 L. ed. 270; *Pennsylvania R. R.* v. *Public Utilities Commission,* 298 U. S. 170, 80 L. ed. 1130; and *General Oil Co.* v. *Crain,* 209 U. S. 211, 52 L. ed. 754;

and,

(*d*) for the erroneous interpretation of the effect required to be given "to the use at the end" referred to by Mr. Justice HOLMES in the *Uncle Sam Company*

case in the *Pipe Line Cases*, 234 U. S. 548, 58 L. ed. 1459;

and respectfully prays that it be granted a rehearing upon the issues so erroneously determined adversely to it and that an oral argument be allowed upon such rehearing.

In support of this petition, it says:

(*a*) By the opinion of the Court, the Champlin Company will be required to file a "valuation report" for which there are no orders or forms available upon which a *private* carrier may file such report with the Commission. The Champlin Company will therefore be required and expected by the Commission to use forms prescribed by Valuation Orders No. 26 and No. 27, which are Exhibit 45 (R. Vol. II, pp. 486-508, incl.,) and Exhibit 46 (R. Vol. II, pp. 509-523, incl.).

An examination of these exhibits will reveal the requirements made thereby, to be wholly common carrier requirements, and as shown (R. Vol. II, p. 511), entail the use of the Uniform System of Accounts for common carrier pipe lines prescribed by the Commission, which, incidentally, the private pipe line carrier cannot use.

If the opinion of this Court is to stand, there should be some modification thereof, as to what form of valuation report the private pipe lines shall be required to file under the decision, because obviously the private pipe line cannot concede that it is a common carrier—which it is not—and unless the opinion of the Court be modified, its attempted enforcement can but result in an immediate appeal to the courts to be relieved of filing valuation reports in conformity with Orders No. 26 and No. 27, *supra*.

The members of the Court should examine Orders No. 26 and No. 27 (Exhibits 45 and 46, R. Vol. II, pp. 486-522, incl.,) to understand the difficulty with which the Champlin Company will be confronted in endeavoring to comply with the opinion of this Court, if it shall stand as written. In fact, it cannot be complied with, because a private pipe line

cannot use such forms, nor employ the system of accounting which is required, and the ultimate issue is obvious.

We are being directed to do an impossible thing: viz, retain our status as a private carrier, so that we may preserve our rights pointed out in the opinion of the Court, and at the same time file a "common carrier" valuation report and adopt the common carrier System of Uniform Accounts as prescribed by the Interstate Commerce Commission.

The effect of the opinion of the Court is to say that Section 19a is separable from the remainder of the Act, and that the Commission has power to require by Orders No. 26 and No. 27 (R. Vol. II, pp. 486-522, incl.,) the filing of "common carrier" valuation reports by every "private carrier" regardless of the nature or character of its operations. The Act does not lend itself to such holding and surely this Court does not intend to so say.

Before proceeding with a consideration of the points of error which we respectfully say are latent in the opinion of the Court, we think it necessary to say something of the background of this litigation, which has not heretofore been thought to be of importance, and has not received the mention that now becomes importantly necessary.

That as a result of voluminous correspondence and telegrams commencing on February 9, 1935 (R. Vol. I, pp. 14-40, incl.,) the Champlin Company was on May 15, 1941, ordered (R. Vol. I, p. 40) to prepare in duplicate and file with the Interstate Commerce Commission not later than September 1, 1941,

> "• • • *the original copy* of a complete inventory of the pipe line property of the Champlin Refining Company, except land, showing the quantities, units, classes, kinds, and condition thereof.
>
> "The inventory shall be made as of the date of valuation already set for the property, December 31, 1940, and shall conform with the enclosed instructions and sample notes.

"Kindly acknowledge receipt of this letter and enclosures.

"Yours very truly, Ernest J. Lewis, Director."

Further directions were given by the Commission and correspondence had (R. Vol. I, pp. 41-45, incl.,), which resulted on July 14, 1941, in a letter to the Commission (R. Vol. I, p. 45) which reads as follows:

"July 14, 1941.

"Mr. Ernest I. Lewis, Director, Bureau of Valuation, Interstate Commerce Commission, Washington, D. C.

"Dear Sir: Receipt is acknowledged of your letter of July 7th, addressed to Mr. Champlin.

"Within the next ten days we will have completed the preparation of all data available from our records and will promptly forward it to you.

Yours very truly,

Champlin Refining Co., G. E. Leverton."

On July 18, 1941, the Champlin Company forwarded to the Commission a full and complete *valuation report* of its products pipe line, in which report is contained in meticulous detail all information which the company possessed with regard to such pipe line investment. The report, however, was not made upon forms furnished by the Commission for *common carrier* use.

Exhibit 45 (R. Vol. II, pp. 486-509, incl.,) and Exhibit 46 (R. Vol. II, pp. 509-523, incl.,) are prints of the forms of valuation orders Nos. 26 and 27, which Champlin refused to use because, as examination thereof will reveal, there is constant admission throughout such forms that the user thereof is a *common carrier*.

The Champlin Company does not interpret the opinion of this Court to hold that it is a *common carrier* within the provisions of Section I of the Interstate Commerce Act, and it should not therefore be required to file valuation

reports wherein it must admit that it is a *common carrier* within the provisions of Section I of the Act.

The gross injustice which will be done this petitioner if required to so file such reports under such circumstances, is at once obvious.

The refusal of the company to act as its self-executioner at the time it tendered the valuation report identified as Exhibit X (R. Vol. I, p. 160) which by reason of its great volume was not printed (R. Vol. II, p. 961, item 26) as a part of the record, was fully justified. Such original report (tendered to the Commission) is in the office of the Clerk of this Court by transmittal from the District Court (R. Vol. I, p. 160), where it may be scrutinized by the members of the Court.

Ernest I. Lewis, Director of the Commission (R. Vol. I, p. 161) in his letter of July 22, 1941, said:

> "• • • • • • • • •
>
> "While the report which you have submitted is informative, it can in no sense be construed as a compliance with the valuation orders which have been served. We are, therefore, returning the report herewith, together with additional copies of Valuation Orders Nos. 26 and 27.
>
> "• • • • • • • • •"

The Champlin Company, as a result of the opinion of the Court, finds itself in the position of having already filed a valuation report such as the Court has said it should file, which is wholly unacceptable to the Commission because it does not confess "common carrier" status, which the Court has said does not exist. The decision of the Court now leaves us where we must file the report upon the forms of the Commission, which require the admission that we are a common carrier. This position of the Commission intensifies the merit of our contention that the "filing of tariffs" and qualifying "to receive competitors' products" (which are certain to destroy our business by depriving us

of our pipe line capacity which is so badly needed for seasonal protection of our hard earned market outlets) is now the next step for us, as it was for Valvoline (R. Vol. I, pp. 127-133, incl.,). See also, addition to Transcript (R., p. 966).

The petitioner most earnestly therefore prays that it may be absolved of filing any report, in which it is required to confess the legal status of a "common carrier."

Petitioner also says Congress did not and could not in 1906, have had in contemplation, or purpose, the regulation of products pipe lines as is unquestionably shown by Technical Bullein No. 517, which is here inserted in this petition:

U. S. DEPARTMENT OF COMMERCE
ROY D. CHAPIN, Secretary
BUREAU OF MINES
SCOTT TURNER, Director

Technical Paper 517

TRANSPORTATION OF GASOLINE BY PIPE LINE

BY
C. P. BOWIE

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1932

For sale by the Superintendent of Documents, Washington, D. C. - - - - Price 10 cents

TABLE 1.—*Motor-gasoline pipe lines in the United States (as of August, 1931)*

Name	Owned by—	Origin	Route or destination	Approximate length, miles	Diameter of pipe, inches	Daily maximum delivery, barrels	Refineries supplying gasoline			Remarks
							Name	Location	Daily capacity (crude), barrels	
Great Lakes Pipe Line Co.	Skelly Oil Co. Continental Oil Co. Barnsdall Oil Co. Mid-Continent Petroleum Co. Pure Oil Co. Phillips Pipe Line Co.	Oklahoma, Kansas	Kansas City, Mo. Omaha, Nebr. Des Moines, Iowa. St. Paul, Minn. Chicago, Ill. Milwaukee, Wis.	1,330	4, 6, 8	30,000	Continental Oil Co. do Barnsdall Oil Co. do Pure Oil Co. Phillips Petroleum Co. do Skelly Oil Co.	Ponca City, Okla. Sapulpa, Okla. Okmulgee, Okla. Barnsdall, Okla. Muskogee, Okla. Okmulgee, Okla. Kansas City, Mo. Eldorado, Kans. Bayonne, N. J.	30,000 10,000 11,000 5,000 12,000 5,000 5,000 23,000 88,000	Barges planned for Mississippi River, Missouri River, and Great Lakes.
Tuscarora Oil Co. (Ltd.)	Standard Oil Co. of Pennsylvania	Bayway, N. J.	Midland, Pa.	371	6, 8, 12	10,000	Standard Oil Co. of New Jersey do	Linden, N. J.	75,000	Barges on Ohio River.
Phillips Pipe Line Co.	Phillips Pipe Line Co.	Texas Panhandle	Wichita, Kans. Kansas City, Mo. St. Louis, Mo.	682	8	30,000	Phillips Petroleum Co.	Borger, Tex.	36,000	Refinery capacity to be increased. Will use barges on Mississippi and Ohio Rivers.
Magnolia Petroleum Co. Do.	Magnolia Petroleum Co. do.	Fort Worth, Tex. Luling, Tex.	Dallas, Tex. San Antonio, Tex.	31 49	3 3	2,000 2,000	Magnolia Petroleum Co. do	Fort Worth, Tex. Luling, Tex.	7,000 5,000	
Sun Pipe Line Co.	Sun Pipe Line Co.	Twin Oaks, Pa.	Columbia, Pa. Harrisburg, Pa. Pittsburgh, Pa. Akron, Ohio. Cleveland, Ohio. Allentown, Pa. Scranton, Pa. Binghamton, N. Y. Youngstown, Ohio. Cesina, Pa. Vanport, Pa. Syracuse, N. Y.	727	2, 3, 6, 8	15,000	Sun Oil Co. and others.	Marcus Hook, Pa.	35,000	Will eventually connect with New York barge canal at Syracuse.
Total				3,210		89,000				

Keystone Pipe Line Co.	Keystone Pipe Line Co.	Point Breeze, Philadelphia, Pa.	Reading, Pa. Mechanicsburg, Pa. Wilkes-Barre, Pa.	200	6, 8	20,000	Atlantic Refining Co.	Point Breeze, Philadelphia, Pa.	50,000	Proposed.
Ajax Pipe Line Co.	Standard Oil Co. of New Jersey. Standard Oil Co. of Ohio.	Glenn Pool, Okla.	Wood River, Ill.	400	10	45,000	Various	Vicinity Tulsa, Okla.	35,000	Has recently constructed two 10-inch lines for crude oil. Construction anticipates converting one line at later date into motor-gasoline carrier.

western districts, although there are numerous lines in the Rocky Mountain and Pacific coast districts handling natural gasoline. Table 1 gives detailed information concerning the lines. The Great Lakes Pipe Line Co. is owned jointly by six Mid-Continent companies, and the refineries of these various companies will supply the gasoline that is to be transported through the line. The total length of motor-gasoline lines now (August, 1931) in operation or under construction is 3,210 miles, and their total maximum delivery is 89,000 barrels a day. Construction has not begun on the Keystone pipe line. The Ajax Pipe Line Co. will not begin to transport motor gasoline through its system for some time.

In July, 1931, 2,900 miles of pipe line were actually being operated to distribute gasoline and motor fuel. Deliveries from these lines during July amounted to 1,270,000 barrels of motor fuel. During the 6-month period January to July, 1931, approximately 4,000,000 barrels of motor fuel was delivered to consumers by means of pipe lines.

According to Mockler,[1] several companies are now planning the construction of gasoline lines from strategic points at tidewater along the Atlantic coast of the United States to interior markets.

For several years plants producing natural gasoline in various oil fields of the United States have been pumping their product through short lines directly into the crude-oil transportation systems or through specially designed systems to refineries or convenient points along the railroads, where the gasoline is loaded into tank cars. In California there are several relatively long natural-gasoline lines. The Shell Oil Co. operates a 6-inch line about 100 miles long extending from a point near the city of Ventura to Wilmington in Los Angeles County and the Union Oil Co. of California, a 6-inch line 80 miles long from the Kettleman Hills field in the San Joaquin Valley to Avila, San Luis Obispo County. These lines are used exclusively for natural gasoline. The Associated Oil Co. has a 6-inch line 170 miles long from various San Joaquin Valley fields to Monterey and the Standard Oil Co. of California, a 10-inch line 70 miles long from Kettleman Hills to Morro, San Luis Obispo County. These lines are used intermittently for the transportation of natural gasoline. The latter company is now building an 8-inch line paralleling their 10-inch line, which is to be used exclusively for natural gasoline.

So far as the author is able to determine the first relatively long line for transporting natural gasoline was constructed in 1912 in Orange County, Calif., by the Pacific Gasoline Co. It was 2 inches in diameter and about 2 miles long and was used to transport natural gasoline from Brea Canyon to a loading rack near Brea.

In 1913 the Pinal Dome Oil Co. constructed a 2-inch pipe line 16 miles long to transport natural gasoline from the Santa Maria oil field, Santa Barbara County, Calif., to a refinery at Betteravia. This line was operated by gravity.

In 1914 the Union Oil Co. of California constructed a 2-inch natural-gasoline line about 30 miles long from Orcutt, Santa Barbara County, to Avila, San Luis Obispo County, Calif.

[1] Mockler, A. E., Plan Gasoline Lines Along East Coast: Oil and Gas Jour., vol. 29, Jan. 29, 1931, pp. 35, 166–167.

FIGURE 1.—Motor-gasoline pipe lines under construction or operating in the United States (August, 1931)

97340°—(Face p. 4.)

In 1915 The Peoples Natural Gas Co., of Pittsburgh, Pa., completed a 2-inch line 23 miles long. It was used to transport natural gasoline from the company's absorption plant at Brave, Green County, Pa., to the Pennsylvania Railroad at Marianna, Washington County. The pipe joints were screwed together, and extra-heavy long collars were used. It is believed that this was the first gasoline line constructed in the Pennsylvania fields.

According to Bureau of Mines reports,[6] the daily production of natural gasoline in California, as of August, 1931, was 1,768,000 gallons. A canvass made by the bureau shows that approximately 78.4 per cent of this amount was shipped from the plants by pipe line.

ACKNOWLEDGMENTS

The author is indebted to the following people for helpful information in the preparation of this paper: W. H. Stueve, of the Oklahoma Gas & Electric Co.; Turner White and A. B. Wardlaw, of the Texas Oil Co.; E. J. Lewis, of the Tuscarora Oil Co. (Ltd.); F. H. Hadley, of the Susquehanna Pipe Line Co.; E. R. Brown and R. H. Kinsloe, of the Magnolia Petroleum Co.; Harry Moreland, of the Great Lakes Pipe Line Co.; W. R. Layne, of the Byron Jackson Pump Co.; N. W. Thompson, Frank Young, and W. C. Roberts, of the Shell Oil Co.; Clyde Alexander, of the Phillips Petroleum Co.; A. H. Riney, of the Phillips Pipe Line Co.; J. W. Boyd, of the Philfuels Co.; H. T. Earl, A. S. Jones, N. H. Blend, and J. W. McCurdy, of the Tidewater-Associated Oil Co.; E. L. Adams, of the General Petroleum Corporation of California; R. J. Johnson, of the Ajax Pipe Line Co.; William Groundwater, of the Union Oil Co. of California; R. L. Ruby, of the Southern Pacific Co.; and H. H. Hall, of the Standard Oil Co. of California.

LOCATING PIPE LINE

In preparing the surveys for a pipe line the engineer should first make a reconnaissance of the country through which the proposed line is to pass to acquire a general knowledge of the topography so that he may select the most suitable route. He may gain such knowledge quickly and satisfactorily by means of an airplane[7] trip over the proposed route and later from a detailed study of a photographic map taken from the air. In excessively hilly country a trip on horseback may be well worth while. Ordinarily, however, such country should not be selected for pipe lines because, even though it offers the shortest route for the line, it may necessitate the building of expensive roads, which may cost more than the additional length of line required.

Old lake beds, where the soil contains a high percentage of alkaline salts, should also be avoided, where possible, as in such soils deterioration of the pipe from corrosion is very rapid.

Moreover, the engineer should consider the prospects of securing a suitable water supply for the pump stations, particularly in desert or semiarid country.

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[6] Knudsen, E. T., Statistical and Economic Surveys: California Petroleum Statement 113, Bureau of Mines, petroleum economics division, August, 1931, 8 pp.

[7] Eliel, L. T., Faults Undiscovered on the Ground Revealed by Aerial Maps: Oil Field Eng., vol. 5, January, 1929, pp. 24, 27, 64.

A route along the bank of a stream is seldom desirable, especially where the flow is torrential during the wet season. At times of high water such a stream may change its course, rapidly undermining and destroying sections of the pipe line. Detours from an otherwise desirable location may be necessary on account of inability to secure right of way; usually, however, this difficulty can be overcome by compromise or condemnation proceedings so that the engineer, in his preliminary work at least, will need to give such possibilities only passing consideration.

SURVEYING

When the tentative route has been chosen a transit line is run, which "ties in" all section corners, monuments marking land surveys, and all adjacent buildings or other structures. On this transit-line survey careful notation is made of intersections with streams, railroads, wagon roads, streets, fences, pipe lines, power lines, and all other crossings of the proposed route. Stakes are set along the transit line at intervals of 100 feet or less, and on each stake is marked with crayon the engineering station that it designates.

Following the transit party the level party takes ground elevations at each engineering station and at such intermediate points as are warranted by stream crossings or other changes in the topography.

As the field work progresses an alignment map and profile are made in the field office. These should be kept up to date in order that errors in transit or level work may readily be discovered and necessary corrections made while the field parties are still in the vicinity. The field map and profile usually are only roughly made, as their paramount object is the detection of errors that must be corrected before the instrument work can proceed.

It is advisable, therefore, that a complete and accurately drawn map and profile of the line be prepared in the drafting office at headquarters so that the engineer who is to design the pipe-line transportation system can study it in detail.

DESIGN OF SYSTEM

VISCOSITY OF FLUID TO BE PUMPED

The design of a pipe-line system for the transportation of oil is greatly influenced by the viscosity of the oil to be pumped. It has been shown[8] that the viscosity of gasoline is somewhat less than that of water. Therefore, in designing a pipe-line system for the transportation of gasoline the engineer will obtain reasonably accurate results by neglecting this small difference in viscosity and designing the system, so far as viscosity is concerned, for the transportation of water, making due allowance for the difference in the specific gravity of water and the grade of gasoline to be handled. Table 2 shows the specific gravity of various grades of gasoline at 60° F. A pipe line designed for the transportation of motor gasoline, which is approximately 75 per cent as heavy as water, in general, should be satisfactory also for aviation and natural gasoline.

[8] Wilson, Robert E., McAdams, W. H., and Seltzer, M., The Flow of Fluids Through Commercial Pipe Lines: Jour. Ind. and Eng. Chem., vol. 14, February, 1922, p. 105. (The curve for hexane is approximately equivalent to that for natural gasoline.)

TABLE 2.—*Specific gravity of water and of various grades of gasoline at 60° F.*

Liquid	Specific gravity at 60° F.
Water	1.0000
Motor gasoline	.7510
Aviation gasoline	.6993
Natural gasoline	.6654

As many volumes have been written concerning the flow of water in pipe lines this paper will not go into the details of that subject. For checking computations the engineer will find hydraulic tables, such as those prepared by Williams and Hazen [9] and Weston,[10] very useful.

POWER PROFILE

For convenience the profile map should show, beneath the ground elevations, a second line called the "power profile," which in the case of a line to transport motor gasoline would represent the ground elevation multiplied by 0.434×0.75, or the static head in feet reduced to pressure in pounds per square inch.

DETERMINING NUMBER AND LOCATION OF PUMPING STATIONS

Gasoline pipe-line pressures up to 600 pounds per square inch have been found entirely feasible, so that the engineer in designing a new system, especially if welded pipe is to be used, may safely use this figure as a maximum working pressure on the system.

If oil lines, however, are to be used as a gasoline system the safe maximum working pressure will, of course, depend on the type and condition of the pipe and pumps, whether the lines are single or looped and their position along highways and through cities, and various other considerations affecting safe and practical operation.

Suppose that the engineer is called upon to design a system that will deliver 200,000 gallons of motor gasoline per 24 hours through a line 80 miles long, the ground elevations of which are shown in Figure 2.

By the use of formulas or hydraulic tables [11] for friction of water in pipes, one will find, using a value of $C=130$, that a smooth pipe 4 inches in diameter will deliver approximately 201,600 gallons per 24 hours, with a loss of head due to friction of 14 feet per 1,000 feet of pipe. Therefore,

$80 \times 5,280 = 422,400$, length of pipe line in feet,

$\frac{14 \times 422,400}{1,000} = 5,913.6$, total loss of head in feet,

$5,913.6 \times 0.434 \times 0.75 = 1,924.9$, pressure in pounds per square inch necessary to overcome friction when pumping gasoline,

$\frac{1,924.9}{80} = 24.0$, pressure in pounds per square inch per mile necessary to overcome friction when pumping gasoline.

[9] Williams, Gardner S., and Hazen, Allen, Hydraulic Tables: John Wiley & Sons (Inc.), New York, 1920, 115 pp.
[10] Weston, Edmund B., Friction of Water in Pipes: D. Van Nostrand Co., New York, 1907, 120 pp.
[11] Williams, Gardner S., and Hazen, Allen, Hydraulic Tables: John Wiley & Sons (Inc.), New York, 3d ed., rev., 1920, p. 32.

As shown by the power profile in Figure 2, the pressure in the system, due to the difference in elevation between pumping station No. 1 and the terminal, is 293−38, or 255 pounds per square inch.

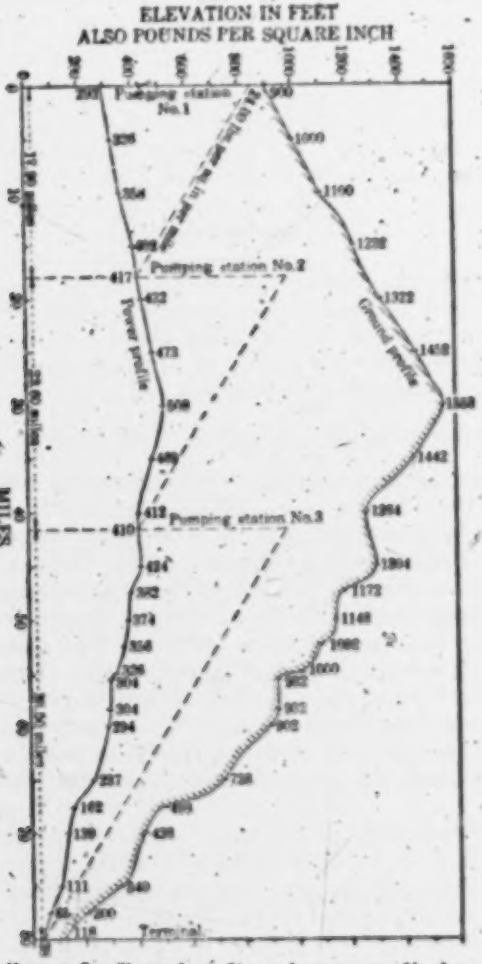

FIGURE 2.—Ground profile and power profile for pipe line

The pressure to be supplied by the pumps will be 1,924.9−255, or 1,669.9 pounds per square inch. If three stations are used the pressure on each pump will be $\frac{1,669.9}{3}$, or 556.6 pounds per square inch, or well under the allowable maximum pressure of 600 pounds per square inch.

With the pumps working against a pressure of approximately 557 pounds per square inch such a system should deliver about 0.8 of 1 per cent more gasoline through the line than the requirement. This excess quantity, however, would be cut down somewhat on account of the friction of short bends, valves, and fittings at the

stations. On the other hand, the pressure on the pumps at each station could be increased considerably without exceeding the 600-pound limit.

If the theoretical capacity of the line as calculated seems satisfactory the position of the pumping stations may be determined as follows: Beginning at the source of the line (fig. 2), plot on the vertical scale a point (849.6) representing 556.6 pounds (the approximate working pressure of the line) plus the static head shown on the power profile. At some convenient distance out—for example, 10 miles—plot the point that represents the pressure at this position on the line (609.6). This pressure at 10 miles will be 240 pounds less than that represented by the first point plotted. Draw a line through these two points and produce it to intersect the power profile. The intersection of the line and the power profile is the theoretical position at which the pressure in the pipe becomes zero; here pumping station No. 2 should be erected. On the vertical scale above this intersection plot a point representing 556.6 pounds plus the static head and proceed as before, continuing to the terminal of the line. If the plot has been accurately made the last diagonal line or gradient will intersect the power profile at the terminal point.

It may happen that a pumping-station site will fall on ground that is undesirable for the erection of tanks and buildings because of swamps, extreme roughness, or other physical characteristics. Under such conditions it is usually better to choose a pumping-station site on either side of the line to the right or left of the theoretical location than to move backward or forward a half mile or more and unbalance the system. If a detour is necessary the new portion of the line should be surveyed, the profile replotted, and all stations relocated.

In some of the pipe-line systems now in use in the United States the pumping stations have not been properly located. The result of this error is that when the system is operating near its maximum capacity equal quantities of oil can not be delivered by the various stations with a constant pressure on the pumps. Engineers engaged in the design and construction of oil-transportation systems will do well to remember the truth of the old adage that no chain is stronger than its weakest link. If 9 pumping stations, of a system containing 10, have a daily maximum capacity of 200,000 gallons and the tenth a maximum capacity of 175,000 gallons then the entire system has a maximum capacity of only 175,000 gallons. Whatever time and money have been expended in enlarging the capacity of the nine stations are wasted until the capacity of the tenth station is equally increased.

CONSTRUCTION

The construction of a pipe-line system for transporting gasoline proceeds in much the same manner as that designed for an oil system.

As gasoline trunk lines are relatively small, ranging from 4 to 10 inches in diameter, they are often constructed in a remarkably short time. Todd[12] describes the completion in seven weeks of a 6-inch

[12] Todd, Lafe, Construction Record Set On Union Oil's 81-Mile Natural-Gasoline Line from Kettleman Hills to Coast: Pipe Line News, vol. 2, June, 1930, pp. 12–15.

welded line 81 miles long and attributes the speed with which the line was built to the use of modern pipe-laying machinery, expert supervision of work, and careful planning before construction was started.

PREPARING RIGHT OF WAY

Where the pipe line passes through heavily timbered country, as in certain parts of Texas and Louisiana, a gang of men must often precede the ditch gang and chop out brush and trees for several feet on either side of the transit line. In fact, in such territory they may have to clear away brush and trees for the transit line.

HAULING AND DISTRIBUTING

The pipe is shipped by railroad from the mills to the nearest or most convenient railroad sidings adjacent to the line. From these points it is hauled by automobile trucks, tractors, or wagons and distributed along the right of way.

Figure 3 shows a tractor being used in hilly country to drag pipe joints from the nearest delivery point by truck into position along the right of way.

Many oil companies have adopted standard types of construction where pipe lines pass under railway tracks and highways. Power [13] describes a type used by the Great Lakes Pipe Line Co. A culvert pipe about 2 inches larger in diameter than the pipe line is placed on a gradient beneath the railroad or highway right of way. The culvert extends a short distance beyond the boundaries of the railroad right of way and is vented at the high end. The pipe line passes through the culvert pipe. This is good practice, because when necessary the pipe line can be removed and replaced through the culvert without disturbing the surface of the highway or railroad right of way. Many of the railway companies require the oil companies to follow standard types of construction when placing oil lines beneath their right of way. In southern California many miles of pipe line carrying natural gasoline have been laid beneath the surface of paved streets without the use of culvert pipes. Some of these lines have been in operation for years and have never given trouble. The precaution has been taken, however, to protect the pipe lines against electrolysis and corrosion.

TELEPHONE AND TELEGRAPH LINE

A combination telephone and telegraph line [14] is very important in the construction and operation of a pipe line. It is often placed along the right of way beside the pipe line. The poles are distributed in the same manner as the pipe. The construction of the telephone and telegraph line precedes that of the pipe line as its use greatly facilitates the construction of the latter. Figure 4 shows an open ditch with pipe joints "strung" beside it. The telephone line has been completed and is in operation.

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[13] Power, John, Gasoline by Pipe Line: Nat. Petrol. News, vol. 22, Nov. 26, 1930, pp. 31–35.

[14] Mitchell, Claude, Important Factors in Pipe-Line Communication Systems: Petrol. Eng., vol. 1, August, 1930, pp. 37–38.

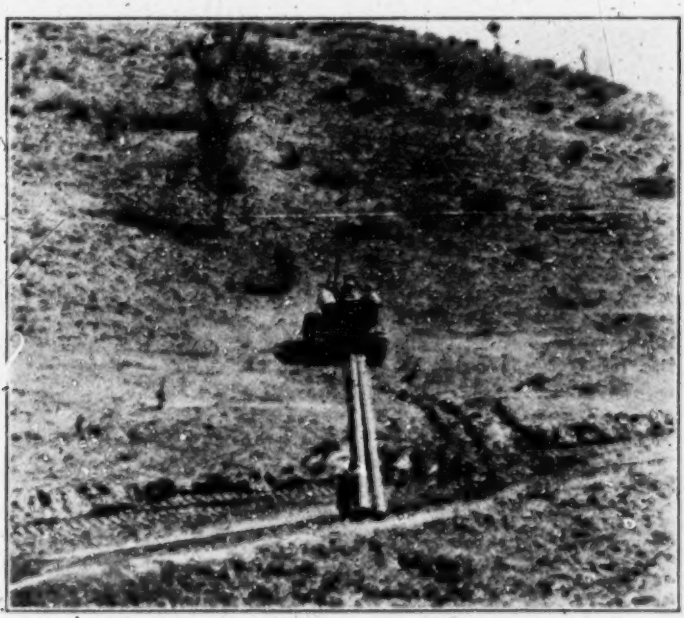

FIGURE 3.—Tractor being used in hilly country to drag pipe joints into position along the ditch

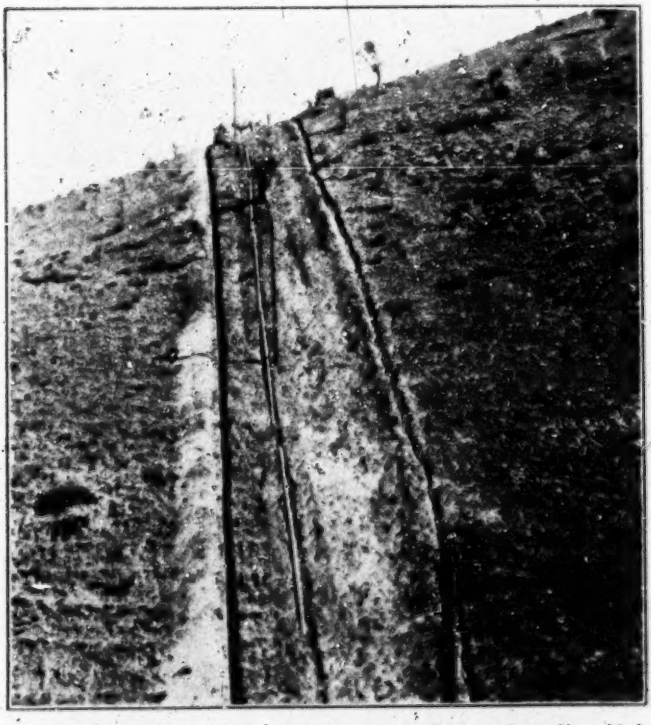

FIGURE 4.—Completed ditch with pipe joints beside it ready to be welded. Note that the telephone line has already been completed.

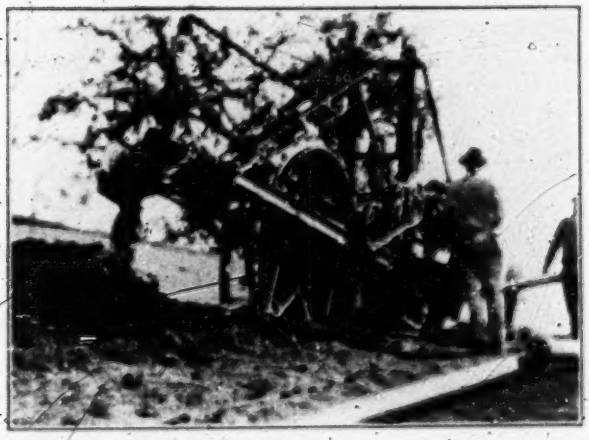

FIGURE 5.—Ditch-digging machine at work on a pipe-line ditch.

DITCHING AND BACK FILLING

The ditch for a pipe line is now usually dug with mechanical ditch diggers. Manufacturers have so perfected these machines that ditching by hand is necessary only at railway or highway crossings, in very rough country, or in territory containing rock sufficiently hard to require blasting. Figure 5 shows a type of machine used for ditch digging. Back filling is also done by specially designed machinery.

WELDING

The most important development in recent years in pipe-line construction has been the welding of pipe joints. Formerly welding was done by oxygen and acetylene gas exclusively, but during the past year a number of lines have been electrically welded. In the smaller sizes seamless pipe has been extensively used, and in the larger electrically welded pipe (pipe with the longitudinal or spiral seam electrically welded) is coming into use. This type of pipe[15] is made of steel with a carbon percentage of 0.25 to 0.35 and a tensile strength of 64,000 to 72,000 pounds per square inch.

The joints of pipe delivered in the field for welding usually are 35 to 45 feet long, whereas the screwed pipe formerly used was delivered in joints about 20 feet long. Although there are thread compounds on the market that will keep the joints of screwed pipe leak proof, even when gasoline is being pumped through the line, the author believes that trunk lines, or lines that may be considered reasonably permanent, should be welded. When the welding has been properly done the line becomes practically one piece of pipe from pumping station to pumping station and should be no more liable to leak at the welds than at any other place in the walls of the pipe. Several methods for joining pipe lengths by welding are now in use: (1) The butt weld, (2) plain bell-and-spigot weld, (3) bell-and-spigot weld with welding dam, (4) bell-and-ring weld, and (5) flange weld. These are shown in Figure 6. For butt welding the ends of the pipe are beveled at an angle of approximately 45°. The criticism of this type of joint is that where the edges of the pipe are not in complete contact there is danger that "icicles" will be formed inside the joints during the welding process. Some of these may extend far enough into the pipe to prevent the passage of a "go-devil" or cleaner, which is used if the pipe needs cleaning. At least one welding company, however, is now developing a weld which it claims will eliminate the formation of icicles. In the plain bell-and-spigot weld one end of each joint is expanded or belled so that the plain end of another joint fits into it. The weld then connects the edge of the belled joint to the outer circumference of the plane or spigot joint. In the bell-and-spigot weld with welding dam the spigot end has a ridge or shoulder around the circumference of the pipe of sufficient height and at such a distance from the end of the pipe as to form a dam when the pipe joints are placed in position to be welded. The welding metal placed in this dam joins the edge of the belled joint with the outer circumference and shoulder of the

[15] Heltzel, W. G., Progress in Pipe-Line Transportation: Pipe Line News, vol. 2, February, 1930, pp. 14–19.

spigot joint. In the bell-and-ring weld both ends of the pipe joint are belled and the belled edges beveled at an angle of about 45°. A ring of steel is placed inside the bells, and the welding joins the edges of the pipe joints and the steel ring. In the larger sizes of pipe the flange[16] weld has been used successfully. The ends of each pipe section are provided with a narrow flange formed by rolling the metal out at right angles to the axis of the pipe. The width of the flange is about four times the thickness of the metal of the pipe. The

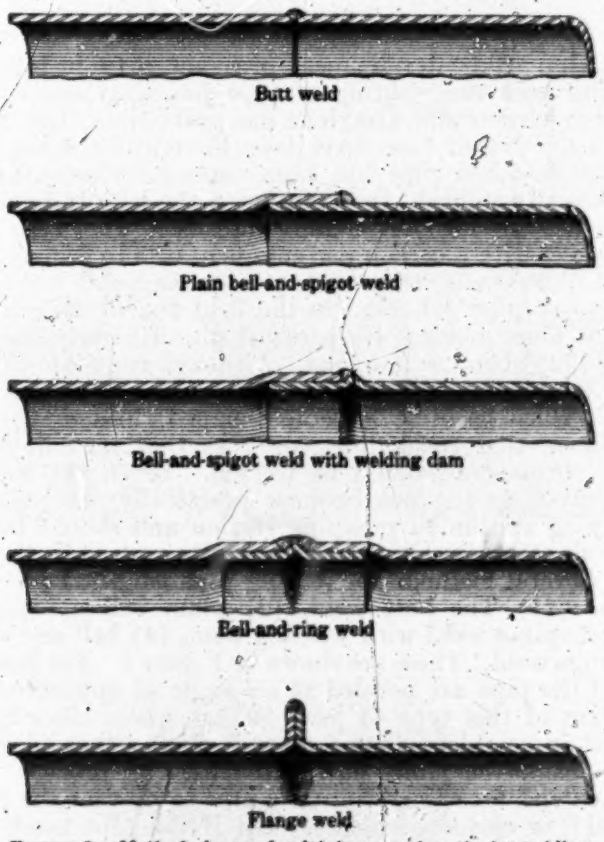

FIGURE 6.—Methods in use for joining pipe lengths by welding

weld metal is placed along the peripheries of the flanges. Such an arrangement provides not only a strong bond between integral parts of the pipe line but an expansion joint as well.

Four or five joints usually are welded together beside the ditch and then placed in position on skids over the open ditch where the final welds are made. Large portable cranes are used to lower the welded line into the ditch.

Pipe lines up to 8 inches in diameter and buried 3 feet or more in the ground may be safely laid without expansion joints. However,

[16] Jones, L. T. A New Development in Pipe-Line Girth Welding: Pipe Line News, vol. 2, April, 1930, pp. 20–22.

as the pipe probably will be warmer when it is laid than at any later time it is considered good practice to zigzag it back and forth along the bottom of the ditch.

STREAM AND RIVER CROSSINGS

Overhead crossings are general where dry washes, irrigation ditches, or streams are encountered. These washes may range from those that are spanned by one unsupported joint of pipe to large streams several hundred feet in width, requiring elaborate suspension bridges. Such a suspension bridge for a pipe line, constructed by the City Service Gas Co., is described in the Petroleum Engineer.[17]

Kenan[18] describes a 2,256-foot suspension-type pipe-line bridge across the Red River near Byers, Tex. This bridge has two main suspension spans 752 feet long and two backstay spans 376 feet long.

Sometimes large streams and rivers are crossed by placing the pipe on such structures as railway and highway bridges, but this is not good practice as gasoline lines present a dangerous fire hazard.

The usual practice in crossing rivers and large streams is to place the pipe on the river bed. If the river is navigable considerable time may be consumed in obtaining a right of way, as permission to cross may have to come from county, State, and Federal authorities.

If possible, this part of the construction is done when the river level is low. English[19] describes the construction of an 8-inch line built along the surface of ice on the Mississippi River and then lowered to the bottom of the river by cutting a channel through the ice.

Generally, river work is done from a barge about 100 feet long. The joints of pipe after being coated with a protective covering against corrosion are welded together on the barge. As the work proceeds the barge is pulled forward and the pipe lowered to the river bottom. Extra-heavy pipe is used, and the joints are butt welded. Over this weld is placed a steel band of about the same thickness as the pipe and about 3 inches wide. The edges of the band are then carefully welded to the pipe. Sometimes this band is made from a short sleeve of pipe, the diameter of which is such that it will fit snugly over the butt weld. This construction reinforces the pipe at the weld and provides three welds, two of which must be faulty before the pipe will leak.

"River clamps" (fig. 7) are placed on the pipe at intervals—about one to a joint—to hold the line on the bottom of the river. Formerly when screwed pipe was used these clamps were placed over the pipe collars to reinforce the pipe at the joint as well as to weight it down. Now when band construction is used at the weld the river clamps are placed at some other position on the pipe so that they need not be removed when a leak in a weld is repaired. A set of clamps to fit 8-inch pipe often weighs as much as 900 pounds.

[17] Petroleum Engineer, City Service Builds Novel Steel Bridge for Pipe Line: Vol. 1, March, 1930, pp. 80–84.

[18] Kenan, Wilder, The Development and Advantages of the Pipe-Line Bridge: Petrol. Eng., vol. 2, February, 1931, pp. 34–36, 38.

[19] English, J. T., River Crossing is Laid on Top of Ice: Oil and Gas Jour., vol. 29, June 5, 1930, pp. T–187–T–192.

Pontoons are often attached to the pipe as it is lowered into the water to keep it from sinking too rapidly, thereby causing undue strain. After the pipe has been lowered divers are sometimes employed to cut a trench beneath it where there are abrupt changes in contour of the river bed. Hydraulic jets usually are used for this work.

In river crossings it is good practice to lay the pipe lines on the arc of a circle with the convex side upstream. Then when swift currents flow against the pipe, as in times of high water, the pipe is always in compression and it will not pull in two if the river clamps are heavy enough to hold the pipe line on the bottom of the river.

PROTECTIVE COVERINGS

The selection of protective coverings for the prevention of corrosion in pipe lines is worthy of serious consideration. Such coverings now in common use range from relatively inexpensive paints to specially treated roofing papers; they cost from 1 to 8 cents per square foot of area covered.

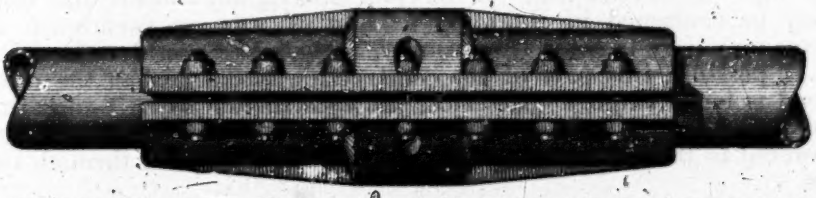

FIGURE 7.—Type of river clamp. A set of this type for 8-inch pipe weighs about 900 pounds.

Concrete has been used to a limited extent for protecting oil pipe lines. Between 1913 and 1920 the Standard Pipe Line Co.[20] coated 180 miles of 8-inch oil line traversing Louisiana swamp land with a mortar composed of 1 part of cement and 3 parts of coarse sand. The coating is reported to be in good condition and has required no repairs or replacements. Other companies are also said to have had good success in the use of concrete for this purpose. The cost of materials per mile of 8-inch line, f. o. b. Chicago (November, 1930), for coating the pipe with 1 inch of concrete is estimated to be from $220 to $245 per mile, depending on the mixture used. To this cost must be added the labor costs of mixing and placing the concrete. In a communication to the author Hough states that with a properly equipped plant 10 men can cover a mile or more of 8-inch pipe line a day.

A portable machine[21] for coating pipe lines with cement has recently been constructed and has been used to a limited extent.

Jones[22] points out that in many soils paint alone, costing only a few cents per square foot, will protect pipe against corrosion for years. Other engineers contend that a pipe line should be either

[20] Hough, J. F., Concrete Coverings for Pipe Lines: Oil and Gas Jour., vol. 29, Jan. 15, 1931, pp. 62, 140–141.

[21] Oil Bulletin, Cement Coating Machine for Pipe Lines: Vol. 17, January, 1931, pp. 63–64.

[22] Jones, A. S., Elimination of Preventable Waste by Corrosion in the Pipe-Line Industry: Bull. Am. Petrol. Inst., vol. 9, Jan. 31, 1928, pp. 271–273.

put in the ground bare or given a thorough and expensive treatment. However this may be, the author believes that there are undoubtedly numerous instances in which pipe-line protection has been overdone; thousands of dollars have been wasted on expensive covering for lines that pass through well-drained soils which contain little if any corrosive salts. Much of this monetary waste could have been prevented by a careful study of soil conditions and by coating only the part of the line that traversed corrosive soil.

Since 1922 [23] the United States Bureau of Standards has been making an exhaustive study of soil corrosion and its prevention. When this research is completed it is believed that after careful examination of a locality the life of a bare pipe line passing through the district can be predicted roughly and the proper type of protective covering specified.

TESTING

As the construction of the line proceeds it should be tested carefully for leaks. A number of methods [24] are described in the Petroleum Engineer. The usual procedure is to divide the line into sections ranging in length from a few miles to the distance between two successive pumping stations. Water is then pumped into the line under the desired pressure and a careful examination made of each joint of pipe for leaks. Where leaks are found the pipe is marked, and if necessary the leaks are repaired when the pressure is released and the pipe drained. Hydrostatic pressure is again applied, and further search is made for leaks. If none can be found the pressure should be held for at least 5 or 6 hours before being released. Some companies hold the pressure for as much as 24 hours.

Many companies [25] employ inspectors to inspect each weld as soon as it is completed. If the weld does not have the appearance of a "good weld" a strip about 1 by 6 inches, having the questionable weld at its middle section, is cut from the pipe with a coupon cutting machine. Tests for tensile strength, ductility, etc., are made in the field. In this way most of the faulty welds are detected before a completed section of the line is tested.

F. L. Hadley, general superintendent, Susquehanna Pipe Line Co., in a personal communication to the author describes the method used by his company as follows:

> When the lines are laid they are subjected to 100 pounds air pressure. The welds are gone over carefully with soap and water. After being made tight at this pressure the line is buried except for the welds and when wholly completed it is tested with water at a pressure of over 1,000 pounds per square inch on 8-inch pipe and 1,500 pounds on 6-inch pipe. If defective welds are found they are cut out and new welds made. Piping in our pump stations is tested at 1,200 pounds water pressure with a hammer test for tightness and strength.

A. H. Riney, chief engineer, Phillips Pipe Line Co., in a personal communication describes the method used by the Phillips Pipe Line Co. in testing their 8-inch gasoline line recently constructed from Borger, Tex., to East St. Louis, Ill., as follows:

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[23] Logan, K. H., Report of Bureau of Standards Soil Corrosion Investigation: Oil and Gas Journ., vol. 28, Dec. 5, 1929, p. 178.

[24] Petroleum Engineer, Accurate Methods Available for Testing Wells: Vol. 2, March 1931, pp. 109–110, 112, 114.

[25] Dameron, J. H., Construction and Equipment of Great Lakes Gasoline Line: Petrol. Eng., vol. 2, October, 1930, pp. 47–48.

At the mill the pipe is first cleaned thoroughly inside with caustic and steam, then tested to 1,200 pounds water pressure and thoroughly checked for other defects. The pipe is then dried inside and out, sealers placed on both ends of the pipe, and priming coat of paint applied to the exterior surface. Each piece of pipe bears the mark of the inspector.

After the pipe is strung along the ditch, it is welded into sections of 200 feet in length. During this welding process an inspector is always present and has on the ground a portable testing machine to make tests whenever he considers it necessary. Our specifications required that these test specimens should stand a pull of 50,000 pounds per square inch. All welds failing below this minimum requirement were rejected. This 200-foot section is then sealed on both ends and filled with compressed air at 90 pounds pressure. Soapsuds are then applied to all welds in order to find any pinholes or imperfections in the welding. If any pinholes develop, the weld is cut off and the pipe rewelded. These 200-foot sections are then welded together, this weld being known as the bell-hole weld. There is no test applied to this bell-hole weld other than the test applied to the entire line. Only very carefully selected welders were used on the bell-hole welding.

After the pipe is painted and lowered into the ditch and back filled, a final hydrostatic test of 1,200 pounds per square inch is then applied to the line. Recording gages are used to detect any pressure drops or leaks. The final test requires that these pressure recordings must stand uniformly and show no drop in pressure for a continuous 40 hours.

BLOCK VALVES

Where the line passes through hilly country some operators install block valves at the low points so that in case of a bad leak in the pipe the gasoline in an adjacent block may be saved by closing the proper valve.

PUMPS

The engineer has a choice of either the centrifugal or reciprocating type of pump, as both are now being used successfully. Some of the advantages of the centrifugal pumping station are:

1. The unit is relatively small and light.
2. The installation can be quickly assembled.
3. A small building usually will suffice for a pump house.
4. Pump foundations are relatively small and inexpensive to construct.
5. First cost of pumping unit is low.
6. A constant pressure on the line can be easily maintained.
7. The installation is almost ideal for automatic control.

Some of the advantages of the reciprocating pump are:

1. It is highly efficient and can handle small as well as large quantities of gasoline to good advantage.
2. A break in the line is indicated instantly by a drop in pumping pressure.

Motive power for operating the pumps is furnished by steam, electricity, or natural gas. The Phillips Pipe Line Co.[28] has equipped its motor-gasoline line from Borger, Tex., to St. Louis with pumping engines of the 6-cylinder, 4-stroke-cycle, gas-engine type burning vaporized butane and developing 260 hp. at 360 r. p. m. Liquid butane in "plugs" is forced through the line. Centrifugal pumps are used. These are 4-inch, 4-stage pumps so arranged that two can be operated in series, developing a pressure of about 750 pounds per square inch at 3,450 r. p. m.

[28] Pound, J. H., Pipe Line Engineering Progress in 1930: Oil Weekly, vol. 60, Jan. 30, 1931, pp. 58–60.

Packing leaks.—Pumps with leaking packing glands have hitherto been an almost constant source of annoyance when light grades of gasoline are pumped. Such leaks may result in a considerable loss of gasoline and are always a dangerous fire hazard. Manufacturers are now at work on this problem, with the result that certain types of packing are being produced that give promise of satisfactorily overcoming the troubles formerly experienced when packing glands leaked.

Valve leaks.—Valve leaks, especially in the gate valves, present another problem. Some operators who handle various grades of gasoline and the lighter refined products with the same pumps arrange their pumping manifolds so that, where desired, blank flanges can be expeditiously placed between valves. A California company has recently constructed a manifold for handling light products wherein blank flanges and orifice flanges have been substituted for valves. Another feature of this manifold is that it is constructed entirely aboveground to facilitate the operation and reduce the hazards from escaping gases.

PIPE-LINE TANKAGE

On account of the extreme volatility of gasoline (especially natural gasoline) pipe-line tankage at intermediate stations in trunk systems should be reduced to a minimum, if not eliminated. The practice at initial and terminal stations is to store natural gasoline under a pressure of 20 to 40 pounds per square inch in steel tanks with dished or conical heads or of spherical construction and to store motor gasoline in tanks with floating roofs or "breather" roofs. These tanks have been discussed by Schmidt.[27] Figure 8 shows a type of tank used for storage of natural gasoline.

AUTOMATIC PUMPING STATIONS

To eliminate tanks at intermediate stations and to reduce operating costs many gasoline pipe-line systems are now controlled automatically. A good example of such a system is the 100-mile pipe line [28] of the Shell Oil Co. recently constructed to transport natural gasoline from Ventura to Wilmington, Calif.

This line has two pumping stations, one at Ventura, where the pumps are driven by steam turbines, and an intermediate station, where electricity is used as motive power. There are two pumps at each station, one for operation and one stand-by. They are 2 by 12 inch, 8-stage, single-case, oscillating, multiplex, centrifugal pumps. The pump cases are constructed to withstand a pressure of at least 1,000 pounds per square inch. They have bronze fittings throughout, solid bronze runners, and bronze, water-cooled, cowl packing glands. The pumps are so designed that runner No. 2 delivers to a runner at the opposite end of the pump; the pressure on the high-pressure stuffing box is therefore about one-fourth of the total discharge

[27] Schmidt, Ludwig. A Floating Roof for Oil Tanks: Rept. of Investigations 2547, Bureau of Mines, 1923, 9 pp.; A Diaphragm or "Breather" Roof for Oil-Storage Tanks: Rept. of Investigations 2984, Bureau of Mines, 1930, 9 pp.

[28] Simms, F. E. A 100-Mile Natural-Gasoline Transmission Line: Western Gas, vol. 3, April, 1927, pp. 20–21.

pressure. The pump cases are split horizontally and so arranged that all rotating parts may be inspected or completely removed without disturbing the suction or discharge piping. Each pump is mounted on a heavy cast-iron base and is directly connected by flexible couplings to the steam turbine or electric motor that operates it.

The intermediate station is operated automatically. The usual storage tank is replaced by a small pressure tank which receives the incoming gasoline. (See fig. 9.) Three liquid-level floats are attached to the piping at the tank. Two of these, *a* and *b*, operate the starting and stopping mechanism for the pump; the third, *c*, actuates a lever throttle valve on the discharge line from the pumps. As the level of the gasoline in the pressure tank rises the throttle valve opens and increases the amount of gasoline that leaves the station. As the level drops the valve closes and continuously decreases the amount of outgoing gasoline. The throttle valve is so adjusted that it can never close entirely. When the pump at the initial station is shut down the pressure tank soon empties and brings into action float *b* which operates the stopping mechanism and shuts down the intermediate pump. When the pump at the initial station is set in motion the pressure tank fills with gasoline and brings into action float *a*, which starts the pump at the intermediate station. This system has been transporting natural gasoline for about three years and so far has been thoroughly satisfactory.

LINE RIDERS

In the operation of all trunk-line systems transporting petroleum products it is common practice to employ line riders or line walkers, who continually patrol the line and look for leaks. Such practice is particularly necessary in gasoline systems, especially where they pass through thickly settled districts, as a small leak, unless quickly detected and repaired, may result in great property damage.

ECONOMIC CONSIDERATIONS

Although the author feels assured that the transportation of all grades of gasoline by trunk pipe-line system is entirely feasible from the standpoint of engineering he believes that the economic factors governing the sales distribution of motor gasoline in each district into which it is proposed to project a pipe line must be considered carefully.

Pipe-line terminals must be at or near large consuming centers. Systems having terminals on navigable rivers, the Great Lakes, or barge canals will be at a decided advantage, as barge transportation,[29] because of the low cost, is undoubtedly destined to become a large factor in the economical transportation of motor gasoline.

COST OF PIPE-LINE TRANSPORTATION

Although no actual figures are available concerning pipe-line shipments there is no doubt that transportation of gasoline by pipe line

[29] Meckler, A. E., Gasoline Distribution by Waterways: Oil and Gas Jour., vol. 28, Feb. 27, 1930, pp. 37, 154–155.

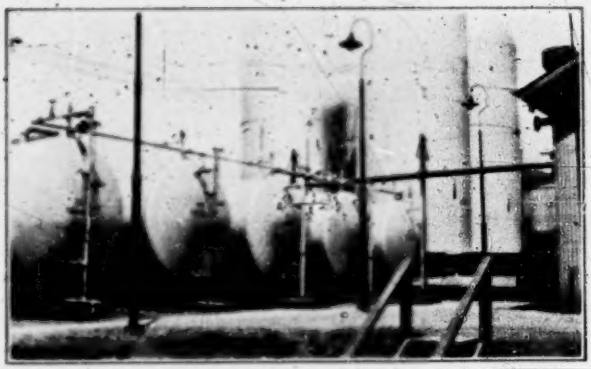

FIGURE 8.—Type of tank used for the storage of natural gasoline. The vertical tanks have dome-shaped roofs

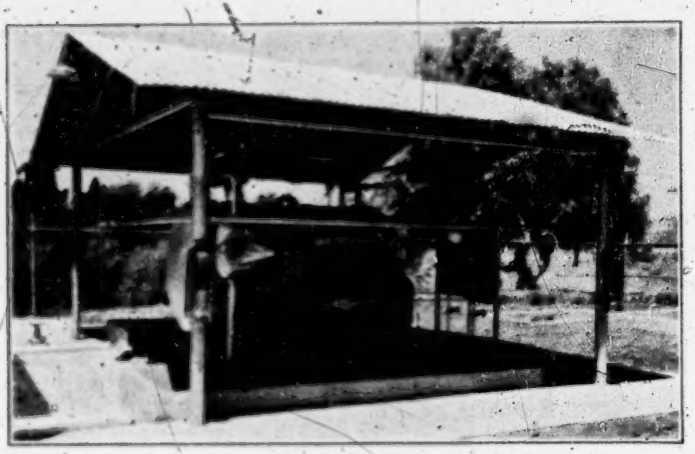

FIGURE 9.—Gasoline pressure tank equipped with liquid-level floats. For explanation see text

FIGURE 10.—Modern type of motor gasoline barge

will show a material saving[30] when compared with railway tank-car shipments under present freight tariffs (August, 1931).

A California oil company has furnished figures for the basis of an interesting estimate showing the cost to deliver motor gasoline by pipe line from San Francisco Bay to Fresno and Goshen in the San Joaquin Valley.

The line is to handle 150,000 gallons (about 15 tank cars) per day from San Francisco Bay to Fresno and 75,000 gallons from Fresno to Goshen. The sizes and lengths of pipe to be used are as follows: 38 miles of 6-inch pipe, 143.3 miles of 4-inch pipe, 181.3 miles of pipe from San Francisco Bay to Fresno, 34 miles of 3-inch pipe from Fresno to Goshen, or a total length of 215.3 miles. Four pumping stations will be required.

The estimated cost is as follows:

Estimated cost from San Francisco Bay to Fresno

[Capacity, 150,000 gallons per day]

38 miles of 6-inch pipe at $7,234 per mile	$274,892
143.3 miles of 4-inch pipe at $4,277 per mile	612,894
181.3 miles right of way at $500 per mile	90,650
181.3 miles of telephone line at $800 per mile	145,040
3 pumping stations at $16,000 each	48,000
	1,171,476
Contingencies, 5 per cent	58,573
Capital investment	1,230,049

DAILY OPERATING COST

[150,000 gallons per day]

Superintendence	$15
Maintenance and repair	90
Line riders	10
Power	63
Pumpers, 3 at $7[31]	21
Loss, 1 per cent of 75,000 gallons at 10 cents	75
Insurance, taxes, overhead	40
Interest on $1,230,049 at 6 per cent	202
Amortization of $1,230,049 at 10 per cent yearly	337
Estimated cost per day	855
Estimated cost per gallon	0.00570

Estimated cost from Fresno to Goshen

[3-inch pipe line 34 miles long; 75,000 gallons per day]

34 miles 3-inch pipe line at $3,326 per mile	$113,084
34 miles right of way at $500 per mile	17,000
34 miles telephone line at $800 per mile	27,200
1 pumping station	16,000
	173,284
Contingencies, 5 per cent	8,664
Capital investment	181,948

[30] Zavoico, B. B., Motor-Fuel Distributing Pipe Lines: World Petrol., vol. 1, October, 1930, pp. 443-446.

[31] Pumping stations would be automatically controlled from the initial station. Only part time is charged for labor at the initial pumping station.

DAILY OPERATING COST

Superintendence	$5
Maintenance and repair	15
Line rider	5
Power	18
Pumpers, 3 at $7 per day	21
Loss, 1 per cent of 75,000 gallons at 10 cents	75
Insurance, taxes, overhead	8
Interest on $181,948 at 6 per cent	30
Amortization of $181,948 at 10 per cent yearly	50
Estimated cost per day	227
Estimated cost per gallon	0.00303

Summary

	Rate per gallon	
Pipe-line transportation cost of gasoline:		
San Francisco Bay to Fresno	$0.00570	
Fresno to Goshen	.00303	
San Francisco Bay to Goshen	.00873	
Railway tank-car freight rate (August, 1931):		
San Francisco Bay to Fresno	.01188	
San Francisco Bay to Goshen		$0.01452
Estimated cost by pipe line	.00570	.00873
Saving in transporting by pipe line	.00618	.00579
Saving, equivalent per cent	52.4	39.9

It will be noted that estimated costs of tank-car shipments do not include 1 per cent loss by evaporation and labor of loading and unloading.

A Mid-Continent company operating a pipe line approximately 482 miles long, through which is pumped a light-gravity crude oil, estimates that on the basis of its present operations it could transport motor gasoline through the system for approximately 17.8 cents per barrel. The railway tank-car freight rate (August, 1931) from the source of the line to the terminal was 80.33 cents per barrel. The saving in transportation by pipe line would therefore be 77.8 per cent, or the pipe-line cost would be 22.2 per cent of railway freight.

COST OF BARGING AND TRUCKING

Barging costs in company-owned barges are estimated to be from 17 to 20 per cent of railway freight tariffs. Figure 10 shows a modern type of gasoline barge. Hauling gasoline in trucks is profitable in competition with railway freight tariffs for distances up to about 200 miles, depending upon highway and weather conditions.

DEMAND FOR RAILROAD TANK CARS

As has been stated, upon the completion of motor-gasoline lines now (August, 1931) being built in the Eastern and Mid-Continent districts (exclusive of natural-gasoline lines), it is estimated that pipe-line capacity will be available in the United States for the transportation of 89,000 barrels, or 3,738,000 gallons daily. This amount of gasoline would fill 373 tank cars having an average capacity of 10,000 gallons. According to the United States Bureau

of Mines petroleum refinery statistics, during the 5-year period 1925 to 1929, inclusive, the average annual increase in the indicated consumption of motor gasoline in the United States has been approximately 107,000 barrels per day. This is 18,000 barrels more than the total daily capacity of all the motor-gasoline lines now under construction or in operation. If the increase in consumption of gasoline continues at an even rate it would appear that there will be no decrease in the demand for tank cars during 1931.

A unique condition in the oil industry is that the railroads, with few exceptions, do not supply tank cars for the transportation of petroleum products over their lines as they do for other commodities. Rowley [32] estimates that there are nearly 275,000 railroad tank cars in operation to-day. These cars are owned either by the oil companies or by such organizations as the Union Tank Car Co. and the General American Tank Car Co., which lease the tank cars to the various oil companies. Hanssen [33] states that during 1929 only 5.5 per cent of the total freight revenue of 37 railroads—or all the important ones operating in the Mid-Continent area—was derived from the transportation of gasoline and refined petroleum products.

Although the construction of motor-gasoline pipe lines will undoubtedly result in the construction of fewer railroad tank cars during the next few years the author believes that future expansion of the petroleum industry will not require the tank cars now in operation to be "junked" because of lack of petroleum products to transport.

CONCLUSIONS

Motor-gasoline pipe-line systems will undoubtedly increase for the following reasons:

1. The decreased cost of transportation. Where water transportation and trucking facilities can be combined it is doubtful if railway tank-car transportation can compete without soon experiencing financial loss.

2. The ease with which the capacity of such a system can be increased by speeding up the pumps, by looping certain portions of the line, and by building additional pumping stations.

3. Minimum losses from evaporation. Trunk lines are practically closed systems.

4. Dependability of service. An oil company operating its own gasoline-distribution system does not depend on outside carriers.

5. The constantly increasing demand for gasoline.

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> "Prior to the perfection of the process of electric welding, pipe line transportation was practically confined to (the) crude oil. That process has made possible the transportation of refined petroleum without loss by reason of imperfect pipe joints; and as a result, since 1931, there has been a rapid growth of gasoline pipe lines."

The opinion of the Court therefore by the odd vote of one of its members, appears to be legislative rather than interpretative, and the wisdom or the necessity for such far-reaching action, should in the light of modern economic conditions, which admittedly did not exist in the times which resulted in the legislation being considered, remain a question of legislative policy within the jurisdiction of Congress.

That Congress has power to require a private interstate pipe line carrier to file valuation reports for whatever purpose Congress may think informative, or otherwise, may be conceded, but the fact remains that Congress has not so legislated, and the history of the times in which the legislation being considered was adopted, as well as the then very limited use (1906) of gasoline and attendant state of the art of pipe line construction, is proof enough of the correctness of this statement of fact.

(*b*) The conclusion (p. 4, printed copy of the opinion) that Champlin's,

> "* * * interstate facilities are operated to put its finished products in the market in interstate commerce at the greatest economic advantage,"

is not to be distinguished from the Uncle Sam operation which was carried on in its entirety for the identical purpose.

Much uncertainty has arisen in attempting to deter-

mine just what Mr. Justice HOLMES meant in the *Uncle Sam* decision in speaking of "Uncle Sam's transportation as,

"being merely an incident to use at its end * * *."

We think the "use" to which he was referring was the storage of finished products in storage tanks in the State of Missouri (R. Vol. II, p. 829), from which sales of products were made by the Uncle Sam Company exactly as Champlin makes sales of products from its storage tanks in other states, and there can be no difference in the principle of the operation in either instance.

If Mr. Justice HOLMES had intended the interpretation which the Court has invoked, he would have used the expression,

"being merely an incident to use at its (refinery)."

The word "end" has a definite meaning in the operation of an integrated oil company and it does not mean the refinery operation which is but half way between the producing of the crude oil and the marketing of the refined product.

So that there may be no doubt of the facts before Mr. Justice HOLMES, we cite R. Vol. II, p. 829, quoting the brief of the Interstate Commerce Commission in the *Pipe Line Cases:*

> "No. 507. The Uncle Sam Oil Company was incorporated under the laws of the Terirtory of Arizona for the purpose of producing, *transporting,* refining and marketing oil. It is not one of the Standard Oil group. It operates oil wells in the Osage Indian Reservation in the State of Oklahoma, and a refinery at Cherryvale, in the State of Kansas. It owns and operates a pipe line, with storage tanks, from its wells in the reservation in the State of Oklahoma to its refineries in Cherryvale, Kansas. Through the agency of a selling corporation, the capital stock of which it owns, *it ships its refined product in tank cars, owned by it, from its refinery at Cherryvale to stations owned by it*

in the State of Missouri. Its right of way for its pipe line was secured by contract over the lands traversed by it, and by permission of the Interior Department over Indian lands; it crosses public highways by grant or permission of the public. Its charter permits it to *transport* oil as a *common carrier.* This company is constructing new lines to other points which will soon be open for traffic." (Italics ours.)

In view of this record, it cannot be doubted that in the use of the word "end" Mr. Justice HOLMES was considering the Uncle Sam filling stations in Missouri as the "end" of its "use" operation.

The Government long argued in this litigation that the "use" of the Uncle Sam Company to which Mr. Justice HOLMES referred, doubtless meant "firing boilers" and "greasing machinery," and Note 8, p. 21 of the Government's brief shows that such mistaken interpretation still lingers.

There is no difference in "the use at the end" in either operation. Both companies store their manufactured products for sale to the consuming public *in storage tanks in states other than the state in which the products are manufactured,* from which storage tanks only such sales are made. Neither of these companies have any "use" for products, except in storage tanks for sales to the public. That is the "use" at the "end" of which Mr. Justice HOLMES was speaking.

The statement (bottom p. 3 and top p. 4 of printed opinion) that,

"* * * The controlling fact under the statute is transporting commodities from state to state by pipe line. * * *"

likewise may not be distinguished from the exactly conformable operation of the Uncle Sam Company.

In the Government's brief in the *Pipe Line Cases* (reprinted R. Vol. II, pp. 701-799, incl.,) the argument was

opened for the Government with the all-inclusive and confident statement that,

> "Congress deliberately intended the Act to apply to every interstate pipe line. It intended to compel every interstate pipe line to become a common carrier as a condition precedent to engaging in interstate commerce. Whether any particular pipe line had or had not been a common carrier prior to the passage of the Act is wholly immaterial."

Mr. Justice HOLMES did not adopt, nor dignify by notice, such contention (which, of course, included the pipe line operations of the Uncle Sam Company) limiting the applicability of the Act (as amended) to such interstate pipe line operations as were the operations of "common carriers in substance," if not so "in form."

The Uncle Sam Company was a statutory *common carrier* in Kansas and authorized by its charter (R. Vol. II, p. 829) to *transport oil as a common carrier*, and it certainly was transporting crude oil from the State of Oklahoma into the State of Kansas by pipe line, so again, when measured by the test which seems to be applied to Champlin in this case, the Uncle Sam operation was squarely within a like test which Mr. Justice HOLMES was unwilling to apply to the Uncle Sam Company.

The opinion of Mr. Justice HOLMES in the Uncle Sam Company is squarely against the contention that "interstate pipe lines" are "statutory common carriers," for otherwise the Uncle Sam Company could not have escaped such classification. The rule which was applied to the pipe line companies which were there held to be common carriers in fact and for that reason alone required to become so in form, was not based upon the statutory definition. Neither was *Valvoline* held upon the statutory definition.

We therefore respectfully urge that the conclusion of the Court, quoted *supra*, viz:

> "That the controlling fact under the statute is

transporting commodities from state to state by pipe line."

is in error in that the "transportation" which brings the operation within Section 1 of the Interstate Commerce Act must be "transportation by persons engaged as *carriers for others*" and that it does not include the movement of property from one state to another by the owner through the use of his own railroad or his own pipe line. In this connection we quote from Mr. Justice CARDOZO in *Pennsylvania Railroad Company v. Public Utilities Commission of Ohio*, 298 U. S. 170, 80 L. ed. 1130, (quoting from p. 175) as follows:

> "• • • The only transportation of this coal by a common carrier of merchandise either by railroad or by water was intrastate transportation in Ohio between Negley and Youngstown. The transportation between Pennsylvania and Ohio was by the owner, who was not a common carrier, but furnished implements of carriage for its own use exclusively. Appellants would have us hold that this interstate transportation by an owner who does not carry for anyone else will be tacked to the intrastate transportation by railroads who are in business as common carriers, and the movement thus consolidated brought within the statute. The statute and the decisions as we read them forbid this unifying process. • • •"

In illustrating the consequences of such a construction of the Interstate Commerce Act, as appellants urged in that case, the Court further said (298 U. S. 176-177):

> "• • • The situation laid before us would not be changed in its essentials if a cooperative association of farmers doing business in Pennsylvania close to the state line were to use a fleet of trucks belonging to the association or its members to carry milk or vegetables from Pennsylvania to a railroad station in Ohio. Even though this were done systematically and not casually or in sporadic instances, the ensuing transportation by

rail, if kept within Ohio, would not be transportation between the states within the meaning of the Act of Congress. * * *"

The Court thereby made clear that the term "transportation" as used in Section 1 of the Interstate Commerce Act as it exists today means transportation by persons engaged as carriers for others, and that it does not include the movement of property from one state to another by the owner through the use of his own railroad or pipe line. The Court also made clear that even though such private transportation by an owner of his property or products is *for the purpose of reaching markets,* nevertheless the movement is not "transportation" within the meaning of that term as used in Section 1 of the Interstate Commerce Act.

Elsewhere in the opinion, the Court made it even clearer that the Interstate Commerce Act is not directed at an owner's interstate movement of his own property or products by his own private means. The Court said (298 U. S. 174):

"* * * The Interstate Commerce Act (49 U. S. C., Sec. 1, *et seq.*) *is aimed at common carriers exclusively,* Sec. 1(1), (3), and not even at all the e. * * *"

Section 1, cited in the quotation last above, is the section which includes the provision that the Act "shall apply to common carriers engaged in * * * the transportation of oil * * * by pipe line." Section 3, cited in the quotation, is the section which provides that "the term 'common carrier' shall include all pipe line companies * * * and all persons, natural or artificial, engaged in such transportation or transmission as aforesaid as common carriers for hire."

The rule against the Champlin Company is ultimately based upon the conclusion (p. 4, printed copy of the opinion of the Court) that the Champlin use of "differentials" in competitive pricing of products

"* * * points up a significant distinction from the *Uncle Sam* case."

If there is a distinction, then it must be that this Court is presuming the Uncle Sam Company did not include the expense of operating its private line as a business expense, affecting the selling price of its products. It is earnestly submitted that there is no justification for any such presumption. In fact, the opposite is true. The expense of operating its pipe line must have entered into the Uncle Sam Company's cost of doing business, and certainly all such costs and expenses were taken into consideration by the Uncle Sam Company in marketing its products. It is not to be presumed that the Uncle Sam Company would omit the cost of transporting its oil to its refinery in computing its operating costs. Unless this Court can say that the Uncle Sam Company eliminated all costs of operating its pipe line in computing the sale price of its products, then there is no "significant distinction" between the *Uncle Sam* case and the *Champlin* case in regard to their respective pipe lines.

In arriving at a wholesale price, or a price f. o. b. the Champlin terminals, the company has but followed a universal practice. The fact that it uses its own facilities to effect the carriage of the products does not change the established business practice of determining wholesale cost or wholesale price. Nor would that situation alone require the owner of the products to dedicate his private means of transportation to the business of a public carrier. If such were the case, then all of the great chain stores, who ship their merchandise in their own trucks from a central point to retail outlets in various states, would thereby become public carriers in the use of their trucks. The principle would even apply to retail stores who use their own delivery trucks to transport merchandise to their customers in other cities. A farmer hauling his farm product to market would thereby become a common carrier and forced to haul for others. It would result in establishing a principle that a seller of merchandise must use railroads or other public transportation in the carriage of all of his goods or himself

become a common carrier. Surely this Court does not attempt to announce such a principle.

The fact that the Champlin Company has been frank enough to disclose the method by which it met, or has been forced to meet competition, should not be held as a basis upon which to bring it within Section 19a of the Act if it is not a common carrier within Section 1 of the Act. If the Champlin Company had placed upon its products at the respective storage tanks, delivered or f. o. b. prices at such tanks, which were in exact conformity with the price fixed by the use of the "differentials," the assumption would seem to be that it would not then be differentiated from the rule applied to the Uncle Sam Company.

Inasmuch as it is conceded in the opinion that the Champlin Company was hauling its own products, and of course there could be no doubt about that, inasmuch as no sale was ever made to any purchaser at any point other than at the storage tanks and no product was ever earmarked for delivery at any storage plant and no sale was ever made at such terminals other than at a competitive price, with the fixing of which the Champlin Company has never had anything to do, all of which is now subjected to critical interpretation, the question remains as to whether the Champlin Company, if it uses a delivered or f. o. b. price only at its storage tanks, will then be required to file valuation reports under Section 19a of the Act.

In other words, the method one uses to price his products upon the market at a given point cannot legally form the basis upon which his private business may be converted into that of a common carrier. It is confusing to say that the Champlin Refining Company is not a common carrier within Section 1 of the Act, but as a private carrier must nevertheless file "common carrier" valuation data under Section 19a of the Act.

The Interstate Commerce Commission can have no use for a valuation report, except for the purpose of fixing

tariffs and *rates*, and such type of report has never been otherwise used.

We submit that Congress could not have intended such interpretation of the "pipe line act" as is given by the opinion of the Court.

The private carrier is burdened by the opinion with a heavy expense (R. Vol. I, p. 131) in preparing a report, which standing alone, is without significance in a body which concededly is, and has always been, limited in its powers to the regulation and supervision of common carriers.

A rehearing should be granted upon such far-reaching innovation, because it is founded upon a theory that was not advanced, nor argued by either party in the briefs, nor upon oral argument, and is at most a greatly modified affirmance of the action of the (3) judge court.

(*c*) The opinion of the Court does not notice, nor distinguish *controlling* decisions of this Court, viz:

Atlantic Coast Line v. *Standard Oil Co.*, 275 U. S. 257, 72 L. ed. 270;

Pennsylvania R. R. v. *Public Utilities Commission*, 298 U. S. 170, 80 L. ed. 1130;

and,

General Oil Co. v. *Crain*, 209 U. S. 211, 52 L. ed. 754.

First as to the *Atlantic Coast Line* v. *Standard Oil Co.*, *supra*. Chief Justice TAFT, following the Supreme Court of Florida and the United States Circuit Court of Appeals for the Fourth Circuit, said:

"• • • • • • • •

"It seems very clear to us on a broad view of the facts that the interstate or foreign commece in all this oil ends upon its delivery to the plaintiff into the storage tanks or the storage tank cars at the seaboard, and that from there its distribution to storage tanks, tank

cars, bulk station and drive-in stations, or directly by tank wagons to customers, is all intrastate commerce. This distribution is the whole business of the plaintiff in Florida. There is no destination intended and arranged for with the ship carriers in Florida at any point beyond the deliveries from the vessels to the storage tanks or tank cars of the plaintiff. *There is no designation of any particular oil for any particular place within Florida beyond the storage receptacles or storage tank cars into which the oil is first delivered by the ships. The title to the oil in bulk passes to the plaintiff as it is thus delivered.* * * *" (Italics ours.)

The case arose in the following manner (quoting from the opinion):

"* * * * * * * *

"The plaintiff maintains at Port Tampa, Tampa, and Jacksonville large storage facilities, consisting of tanks and warehouses for receiving and storing gasoline, refined oil, lubricating oil and fuel oil. It does not produce or refine any of these products. Gasoline, refined oil and lubricating oil it buys from the Standard Oil Company of Louisiana from its refineries at Baton Rouge, Louisiana, while the fuel oil it buys from the Standard Oil Company of New Jersey from Tampico, Mexico. These four varieties of oil products are brought into Port Tampa and Jacksonville in tank steamers owned and chartered by the sellers, and, with the exception of lubricating oil, the oil is pumped by ships' pumps from the steamers through pipe lines owned by the plaintiff into plaintiff's storage tanks at Port Tampa and at St. Johns river terminal, Jacksonville, Florida. Lubricating oil is pumped from the tank steamers by ships' pumps into tank cars at Port Tampa, or at Jacksonville and by them conveyed respectively over defendant's lines to plaintiff's storage tanks at Tampa, a distance of about 9 miles from Port Tampa, or to Kings Road, a distance of about 2 miles from St. Johns

river terminal, near Jacksonville. All the products are purchased by the plaintiff to be delivered to it by the sellers at Port Tampa and Jacksonville, title not passing to the plaintiff until the products have been so delivered, settlement between the seller and purchaser being made upon the basis of the amount actually delivered into tank cars and tanks. The prices to be paid for gasoline, refined oil and lubricating oil are the current market prices in effect at the time the products are delivered to plaintiff at Port Tampa and Jacksonville. Fuel oil is purchased on yearly contracts at stipulated prices. The tank cars used by the plaintiff in its business are not owned by the railroad company, but are leased by the plaintiff and hauled by the defendant over its lines in common carrier service. * * *"

The applicability of this decision is obvious and must be distinguished, inasmuch as it is in principle here overruled.

In the *Pennsylvania R. R.* v. *Public Utilities, supra,* the material facts were: The Pittsburgh Coal Company by its private barges and railroad moved coal to its cleaning and sizing plant in another state. The purpose of the movement was to reach markets for the coal. The railroad company contended that the movement was with a continuing intention to deliver the coal to customers in other states and that the movement impelled by that intention was interstate commerce. In that case this Court, speaking through Mr. Justice CARDOZO, said that the question before the Court was whether the particular business there involved was subject to regulation under the Interstate Commerce Act, and that the movement from Pennsylvania to the cleaning and sizing plant in Ohio was by private carrier. Although the movement was for the ultimate purpose of sale, Pittsburgh Coal Company was not a common carrier under the Act.

The test of whether or not movement of a commodity is within the coverage of the Interstate Commerce Act is

not to be determined by whether or not the commodity is being moved for the purpose of sale, but by whether or not there exists between the one operating the means of accomplishing the movement and the owner of the property the relation of carrier and shipper.

Further quotation (see, p. 11, *supra*) from Mr. Justice CARDOZO's opinion is unnecessary.

It will suffice to say that that opinion is not distinguished here and its principle is overruled.

The Pittsburgh Coal Company did not use "differentials" in fixing delivered prices at Negley and it is equally true that that company did not haul the coal from the mines in Pennsylvania in its private barges down the Ohio River and over its private railroad from Smith's Ferry to Negley as a gratuity. The fact that it put a *delivered price* upon its coal products at Negley, did not bring it within the Act. Its operation was in practical effect no different than Champlin's operation in measuring volumes of petroleum products after sale upon the market at its terminal storage plants.

In *General Oil Co.* v. *Crain, supra,* referred to by Chief Justice TAFT in the *Atlantic Coast Line* opinion, *supra,* the question was: whether the shipment of "coal oil" in tank cars from its wells and refining plants in Pennsylvania and Ohio to a point in Tennessee (Memphis) where the product is barreled for further shipment to customers in Louisiana and other southwestern states, was an interstate shipment from the well and refinery in Pennsylvania to the customer in Louisiana, or did such removal of such "coal oil" from such tank car at Memphis terminate such shipment so as to make such product taxable by the State of Tennessee?

The Supreme Court held that such transportation did there terminate and was taxable.

Does a different rule apply to shipment of oil, where the transportation agency is a private pipe line, rather than railroad tank cars? We think not. Is there any doubt, in

view of this decision, of the right of the State of Nebraska to tax our products in storage at Superior, or of the State of Kansas to do so at Hutchinson, or of the State of Iowa to do so at Rock Rapids? If these states can so tax such products, then certainly the Interstate Commerce Commission may not regulate such "pipe line" as a "common carrier" in the hauling of products which are the sole property of the owner of the pipe line.

Mr. Justice McKenna, in the *General Oil Co.* case, *supra*, pertinently said:,

"* * * * * * * *

"The beginning and the ending of the transit which constitutes interstate commerce are easy to mark. The first is defined in *Coe* v. *Errol*, 116 U. S. 517, 29 L. ed. 715, 6 Sup. Ct. Rep. 475, to be the point of time that an article is committed to a carrier for transportation to the state of its destination, or started on its ultimate passage. The latter is defined to be, in *Brown* v. *Houston*, 114 U. S. 622, 29 L. ed. 257, 5 Sup. Ct. Rep. 1091, the point of time at which it arrives at its destination. But intermediate between these points questions may arise. *State, Detmold, Prosecutor*, v. *Engle*, 34 N. J. L. 425; *State, Lehigh & W. Coal Co., Prosecutors*, v. *Carrigan*, 39 N. J. L. 35; *The Daniel Ball (The Daniel Ball* v. *United States)*, 10 Wall. 557, 19 L. ed. 999.

"In *Pittsburg & S. Coal Co.* v. *Bates*, 156 U. S. 577, 39 L. ed. 538, 5 Inters. Com. Rep. 30, 15 Sup. Ct. Rep. 415, coal in barges shipped from Pittsburg, Pennsylvania, to Baton Rough, Louisiana, was stopped about 9 miles above destination. It was held that it had ceased to be interstate commerce, and was subject to taxation by the State of Louisiana.

"In *Diamond Match Co.* v. *Ontonagon*, 188 U. S. 82, 47 L. ed. 394, 23 Sup. Ct. Rep. 266, logs in transit to a point without the state were held subject to taxation under a statute of the state, where they would

'naturally leave the state in the ordinary course of transit.'

"In *Kelley* v. *Rhoads*, 188 U. S. 1, 47 L. ed. 359, 23 Sup. Ct. Rep. 259, a flock of sheep driven from a point in Utah across Wyoming to a point in Nebraska, for the purpose of shipment by rail from the latter point, was held to be property engaged in interstate commerce, and exempt from taxation by Wyoming under the statute taxing all live stock brought into the state 'for the purpose of being grazed.' There was no difficulty in the case except that which arose from the contention that the manner of transit was adopted as an evasion of the statute. Otherwise, the grazing of the sheep was as incidental as feeding them would be if transported by rail. The pertinance of the case to the present controversy is in its summary of the principles of prior cases, expressed in the following passage: 'The substance of these cases is that, while the property is at rest for an indefinite time, awaiting transportation, or awaiting a sale at its place of destination, or at an intermediate point, it is subject to taxation. But, if it be actually in transit to another state, it becomes the subject of interstate commerce and is exempt from local assessment.' Property, therefore, at an intermediate point between the place of shipment and ultimate destination, may cease to be a subject of interstate commerce. Necessarily, however, the length and purpose of the interruption of transit must be considered.

"* * * * * * * *"

Inasmuch as the Champlin products, when delivered by the pipe line at the terminal storage tanks, come to rest for an indefinite time, namely, until a sale may be found therefor, interstate transportation within the meaning of the Act is therefore at an end at such time and place, and the consuming or purchasing public has had no right, title or interest in such products prior to such delivery into such storage tanks.

(*d*). Upon the term, "to the use at the end" used by Mr. Justice HOLMES in the *Uncle Sam* case, in addition to what has been said, pages 8, 9, and 10, *supra*, we wish to further say, that, it is not disputed that the Champlin pipe line is operated as an incident to its marketing business. The history of the case shows that Champlin constructed the line in order to preserve its markets throughout the middle west, which it was losing on account of the uncertainties of public transportation of its products. The line is merely used as a facility for moving products from its refining plant to its marketing centers. The principal business of Champlin is producing, refining and marketing petroleum products. The operation of the pipe line is purely incidental to its principal business purposes. It is clearly not a "pipe line company" within the meaning of the authorities.

Appellant has earnestly contended throughout this proceeding that the holding in the *Uncle Sam* case was applicable to the issues of this case, due to the identical nature of the operations of the two companies. The activities of both companies consisted in obtaining crude oil, refining it, and marketing the refined products. The issue in the *Uncle Sam* case arose over the use of its pipe line to draw oil from its wells in Oklahoma to its refinery in Kansas, after which the refined products would be sold and distributed by the company through its marketing facilities in surrounding areas. In this case Champlin had acquired its crude oil and refined it, and is moving its products from one state to another state for the purpose of marketing them. The ultimate common purpose of both companies was to market petroleum products. Each used its pipe line in furtherance of the same ultimate object, the only difference being that in the case of Champlin the oil was moved in the third phase of the operation, the carriage to market, whereas in the *Uncle Sam* case the movement occurred in the second stage of the operation, that is, the carriage to the refineries.

The Court is here called upon to apply a principle, and it is submitted that a slight differentiation as to facts does not change the applicability of the principle involved. In the *Uncle Sam* case the question turned on the issue that the line was a private line and employed for the company's own use. Exactly the same reasoning applies to Champlin's utilization of its line. In the opinion of the Court it is stated with reference to Champlin's pipe line:

> "'These interstate facilities are operated to put its finished products in the market in interstate commerce at the greatest economic advantage."

The same statement could have been made in the *Uncle Sam* case with the same applicability to that company's operations.

Respectful issue is taken with the statement in the opinion of the Court that "the oil is *not* being moved for Champlin's own *use.*" (Emphasis ours.) In the *Uncle Sam* case Mr. Justice HOLMES said that the Uncle Sam Company was drawing oil from its own wells across a state line to its own refinery "for its own *use.*" This Court would apparently hold that the employment of the pipe line by the Uncle Sam Company constituted a "use," whereas the employment by Champlin of its pipe line did not constitute a "use" to Champlin. It is submitted that, if moving petroleum through a pipe line to a refinery is a "use," then moving petroleum products through a pipe line to storage tanks is also a "use." In the one case the use of the oil is to have it available for refining; in the other case the use is in moving the petroleum products to have them available for storage. The *ultimate use* in either case is the sale of the same material.

The word "use" is a word of broad meaning and interpretation, and it is submitted that it is not subject to the limitations to which the opinion of the Court would subject it. In Webster's Dictionary it is said that among the most common meanings of the word "use" are, "usefulness," "utility," "advantage," "productive of benefit."

It has been held that the use of an article contemplates the right absolutely to dispose of it. *National Surety Company* v. *Jarrett, et al.*, 95 W. Va. 420, 121 S. E. 291, 36 A. L. R. 1171.

It will certainly be conceded that there is no direct provision of Section 19a, or any other provision of the Interstate Commerce Act, other than 19a(d), discussed hereinafter, which requires the filing of valuation reports in order to supply congressional information. Nor does the history of the legislation support such a view. The principal objects of the Interstate Commerce Act were to secure just and reasonable charges for transportation, to prohibit unjust discrimination and preferences on the part of common carriers in the service they offer to the public. *Interstate Commerce Commission* v. *Baltimore and Ohio Railroad Co.*, 145 U. S. 263; *Texas and Pacific Railway Co.* v. *Interstate Commerce Commission*, 162 U. S. 197, 210; *Interstate Commerce Commission* v. *Cincinnati, N. O. & T. P. R. Co.*, 167 U. S. 479.

There is nothing in the Act, or out of it, which would indicate that it was intended to make the Commission a fact-gathering body to obtain information from private concerns. The argument that Section 19a applies to private carriers seemingly overlooks the plain words of the Act. The opening sentence of Section 19a(a) is as follows:

> "The Commission shall, as hereinafter provided, investigate, ascertain and report the value of all the property owned or used *by every common carrier subject to the provisions of this chapter,*"

and Section 19a(e) which deals directly with the obligation of the common carrier to furnish the reports, reads as follows:

> "*Every common carrier subject to the provisions of this chapter* shall furnish the Commission or its agents from time to time and as the Commission may require maps, profiles, contracts, reports of engineers, and any other documents, records, and papers • • •

in aid of such investigation and determination of the value of the property of said common carrier * * *."

Thus, the jurisdiction of the Commission to require the filing of reports is limited to one who is a *"common carrier subject to the provisions of this chapter."* It is doubtful if language could be any plainer or its meaning any clearer. Furthermore, Section 19a, in specifying in its various provisions those to whom the section applies, uses such expressions as "common carrier subject to the provisions of this chapter," "such common carrier," "said common carrier," and "common carrier" no less than *twenty-one* times. This simply means that before a person can be held subject to the provisions of Section 19a, it must appear that such person is a "common carrier subject to the provisions of this chapter." The words "this chapter" include the entire Interstate Commerce Act. And the plural term "provisions" leaves no doubt that all of the provisions of the Act were included in the reference.

Furthermore, the argument that Section 19a(a) applies to a private carrier, is in direct conflict with the holding of this Court in *Pennsylvania Railroad Company* v. *Public Utilities Commission of Ohio, supra.*

Again, the contention that the Commission is authorized to obtain such information for its own or congressional purposes is negatived by the very provisions relating thereto. The requirement for furnishing information to Congress is contained in 19a(d). That subsection provides:

> *"Such investigation* shall be commenced within sixty days after March 1, 1913, and shall be prosecuted with diligence and thoroughness; and the result thereof reported to Congress at the beginning of each regular session thereafter *until completed."*

This provision contains its own limitations. It applies only to such common carriers as may be in existence at the time the section was enacted, that is, those concerning which investigations could be commenced within sixty days after

March 1, 1913, and none other. Moreover, the provisions cease to have effect after the completion of the investigations so commenced. The limitations contained within the subsection clearly indicate the purpose of Congress not to extend the requirements of fact-gathering and filing of reports to any carriers other than those who come specifically within the requirements of Section 19a(d).

Thus, the purpose of filing a valuation report is not merely to furnish Congress or the Commission with information; it is to enable the Commission to reach a basis for determining whether or not the charges made by common carriers are reasonable, and also to shorten and expedite any proceedings which might be brought under the provisions of the Interstate Commerce Act, where the valuation of a company's properties is involved, by making such reports *prima facie* evidence of their contents. This is clearly set forth in Section 19a(i), from which we quote as fololws:

> "All final valuations by the commission and the classification thereof shall be published and shall be *prima facie* evidence of the value of the property, in all proceedings under this chapter as of the date of the fixing thereof, and in all judicial proceedings for the enforcement of this chapter, and in all judicial proceedings brought to enjoin, set aside, annul, or suspend, in whole or in part, any order of the Interstate Commerce Commission."

This provision clearly implies that Section 19a does not apply to private carriers for the obvious reason that no private carrier, following a valuation report, would be subject to proceedings under the Interstate Commerce Act or to "judicial proceedings brought to enjoin, set aside, annul, or suspend, in whole or in part, any order of the Interstate Commerce Commission."

Finally, a private carrier should not be subjected to the heavy burdens required by the filing of a valuation report unless (1) it is clearly required by the statute itself, and (2) there is a definite purpose to be served thereby. If there

be any provision of the Interstate Commerce Act requiring the filing of the reports solely for information purposes, it exists by implication only; and if there is any purpose in filing a valuation report, other than to serve as a basis for rate-making, it hasn't been disclosed in this record. The Attorney General has stated in this proceeding that he knows of no purpose the Commission has at this time beyond requiring the filing of the report. Why the Commission would insist upon this appellant expending great sums of money and utilizing the time and effort of many engineers, accountants, cost experts, and technicians of various kinds in preparing such a report, when it had no definite purpose in requiring it, is not understandable. The only logical explanation is that the Commission intends to demand later that appellant assume the duties of a common carrier. This Court must certainly take judicial knowledge of the fact that the filing of a valuation report is the initial step in requiring a company to file tariffs and assume a common carrier status.

It will be remembered that the Commission, in the hearing before that body, held Champlin to be a common carrier as a prerequisite to the requirement that it file a valuation report; and the lower court thought it necessary to find that appellant was a common carrier before it would uphold the Commission's order.

The record shows that this cause was instituted not merely to seek information, but as a *test case* solely to determine "the question of jurisdiction under Section 19(a)." (R. Vol. II, p. 526)

Thus, appellant respectfully insists that its charge that the Commission is endeavoring to compel it to assume a common carrier relationship amounts to more than a "premonition."

It is said in the opinion of the Court that the power of Congress to regulate interstate commerce is not dependent on the technical common carrier status but is quite as extensive over a private carrier. Appellant takes no issue with

this statement. The question here, however, does not deal with the power of Congress, but with the authority which Congress has delegated to the Interstate Commerce Commission in the Interstate Commerce Act. It is submitted that the Interstate Commerce Commission has no power under that Act to require the filing of a valuation report by any carrier other than one which is a *common carrier in fact.*

Wherefore, the Champlin Company respectfully prays that it may be granted a rehearing and review of the issues determined adversely to it and that an oral argument be allowed upon such rehearing.

CHAMPLIN REFINING COMPANY,
Appellant,

By HARRY O. GLASSER,
DAN MOODY,
Attorneys.

CERTIFICATE OF COUNSEL.

The foregoing Petition for Rehearing is presented in good faith and not for delay.

Dated at Enid, Oklahoma, December 2, 1946.

.....,
HARRY O. GLASSER,

.....,
DAN MOODY,
Attorneys for Petitioner.

SUPREME COURT OF THE UNITED STATES

No. 21. OCTOBER TERM, 1946.

Champlin Refining Company, Appellant, v. The United States of America and Interstate Commerce Commission.	Appeal from the District Court of the United States for the Western District of Oklahoma.

[November 18, 1946.]

MR. JUSTICE JACKSON delivered the opinion of the Court.

The Interstate Commerce Commission, acting under § 19 (a) of the Interstate Commerce Act,[1] ordered the appellant to furnish certain inventories, schedules, maps and charts of its pipe line property.[2] Champlin's objections that the Act does not authorize the order, or if it be construed to do so is unconstitutional, were overruled by

[1] ". . . the commission shall . . . investigate, ascertain, and report the value of all the property owned or used by every common carrier subject to the provisions of this Act. . . . The commission shall make an inventory which shall list the property of every common carrier subject to the provisions of this Act in detail, and show the value thereof as hereinafter provided, and shall classify the physical property, as nearly as practicable, in conformity with classification of expenditures for road and equipment, as prescribed by the Interstate Commerce Commission." 37 Stat. 701, 49 U. S. C. § 19a.

[2] On May 15, 1941, the Interstate Commerce Commission, by letter addressed to the president of the Champlin Refining Company, requested that the company prepare and file with the Commission "a complete inventory of the pipe line property of the Champlin Refining Company, except land, showing the quantities, units, classes, kinds, and condition thereof." The Commission enclosed with its letter copies of its Valuation Orders Nos. 26 and 27, with which the inventory was to comply. The Champlin company did not respond to the request in a manner satisfactory to the Commission, and on June 12, 1944, the Commission made the order of which the company here complains. It directed the company to comply with the provisions of Valuation Orders Nos. 26 and 27 within ninety days of the service of the order.

the Commission and again by the District Court which dismissed the company's suit for an injunction.[3] These questions of law are brought here by appeal. Judicial Code § 238, 28 U. S. C. § 345.

Champlin owns and operates a line of six-inch pipe five hundred and sixteen miles in length lying in five states. Originating at Champlin's Enid, Oklahoma refinery, it crosses Kansas, Nebraska, a part of South Dakota, and ends in Iowa. It is used only to convey the company's own refinery products to its own terminal stations at Hutchinson, Kansas; Superior, Nebraska, and Rock Rapids, Iowa, at each of which the line connects with storage facilities from which deliveries are made.

The statute, so far as relevant, says that it shall apply "to common carriers engaged in" "transportation of oil or other commodity" by pipe line from one state to another. It provides also, that "common carrier" includes "all pipe-line companies."[4] This language on its face would seem to cover the appellant's operation.

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[3] In response to the Commission's letter of May 15, 1941, the Champlin company filed with the Commission information and charts which it believed would satisfy the Commission's request. The Commission, however, returned that report to the company, because in it the company had not recognized that it was a statutory common carrier and had not compiled the report from that viewpoint. The company then requested a hearing before the Commission to determine its status. On December 14, 1942, and on reargument, June 12, 1944, the Commission decided that appellant is a common carrier subject to the provisions of the Act. After the Commission had issued its supplementary order of June 12, 1944, appellant petitioned the district court for an injunction against the order. In accordance with §§ 46 and 47 of Title 28, U. S. C., the district judge convened a three judge court, which heard the case and dismissed appellant's petition.

[4] § 1. "(1) That the provisions of this Act shall apply to common carriers engaged in—

"(b) The transportation of oil or other commodity . . . by pipe line . . . from one State . . . to any other State . . .

"(3) (a) The term 'common carrier' as used in this Act shall include all pipe-line companies; express companies; sleeping-car companies;

Champlin contends, however, that the "transportation" mentioned in the Act does not refer to the carriage of one's own goods. The District Court has found that Champlin is the sole owner of the products transported through its pipe line; it has never transported, offered to transport, or been asked to transport any products belonging to any other company or person; its pipe line does not connect with any other pipe line but only with storage tanks at the three terminal points; there are no facilities for putting any petroleum product into the line other than at the Enid refinery; delivery of the products at the three terminal points is made from Champlin's storage tanks by means of truck racks or railroad tank car racks and is not made directly from the pipe line in any instance; no tariffs stating transportation charges have been filed with the Interstate Commerce Commission or with any State commission or regulatory body.

Because of these facts the appellant suggests that the language and holding of this Court concerning the Uncle Sam Oil Company in *The Pipe Line Cases*, 234 U. S. 548, approved in *Valvoline Oil Company* v. *United States*, 308 U. S. 141, govern this case. The Uncle Sam Company operation is described as "simply drawing oil from its own wells across a state line to its own refinery for its own use, and that is all . . . ." *The Pipe Line Cases*, 234 U. S. 548, 562. The Court considered this was not "transportation" within the meaning of the Act.

But we think it would expand the actual holding of that case to apply its conclusion to Champlin. The controlling fact under the statute is transporting commodities

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and all persons, natural or artificial, engaged in such transportation as aforesaid as common carriers for hire." 41 Stat. 474, as amended, 48 Stat. 1102, 49 U. S. C. § 1. The last words of § 1 (3) (a), "engaged in such transportation as aforesaid as common carriers for hire", do "not affect the generality of the first clause as to pipe line companies." *Valvoline Oil Co.* v. *United States*, 308 U. S. 141, 146.

from state to state by pipe line. Admittedly Champlin is not a common carrier in the sense of the common law carrier for hire. However, the Act does not stop at this but goes on to say that its use of the term "common carrier" is to include all pipe line companies—a meaningless addition if it thereby included only what the term without more always had included. While Champlin technically is transporting its own oil, manufacturing processes have been completed; the oil is not being moved for Champlin's own use. These interstate facilities are operated to put its finished products in the market in interstate commerce at the greatest economic advantage.

Examination of Champlin's pricing methods supports the view that appellant is engaged in transportation even though the products are still its own when moved. The District Court found that price at the terminal points includes f. o. b. price at the Enid refinery and an additional sum called a differential. The differential is the through railroad freight rate from Enid to the final destination (usually the purchaser's place of business) less the carrying charges from the pipe line terminal to final destination. The District Court found, however, that competitive and other conditions "sometimes cause departures from the prices arrived at in accordance with the formula above described." Appellant states that as to some deliveries "rail rates were used merely as a basis for calculating a delivered price, not as a charge for transportation." Even so, and even though departures from the calculated differential are substantial and frequent, we think this practice points up a significant distinction from the Uncle Sam case.

We hold that Champlin's operation is transportation within the meaning of the Act and that the statute supports the Commission's order to furnish information.

Appellant further contends that, as so construed, the Act exceeds the commerce power of Congress and violates

the due process clause of the Fifth Amendment because it is argued that this interpretation converts a private pipe line into a public utility and requires a private carrier to become a common carrier. But our conclusion rests on no such basis and affords no such implication. The power of Congress to regulate interstate commerce is not dependent on the technical common carrier status but is quite as extensive over a private carrier. This power has yet been invoked only to the extent of requiring Champlin to furnish certain information as to facilities being used in interstate marketing of its products. The commerce power is adequate to support this requirement whether appellant be considered a private carrier or a common carrier.

The contention that the statute as so construed violates the due process clause by imposing upon a private carrier the obligations of a conventional common carrier for hire is too premature and hypothetical to warrant consideration on this record. The appellant in its entire period of operation has never been asked to carry the products of another and may never be. So far, the Commission has made no order which changes the appellant's obligations to any other company or person. If it does, it will be timely to consider concrete requirements and their specific effects on appellant. At present, appellant is asked only to provide information about a subject within the power possessed by Congress and delegated to the Commission, and that cannot be considered a taking of property even if it arouses appellant's premonitions.

We hold that the order before us is authorized by statute and that in this respect the statute is within the commerce power and does not offend the Fifth Amendment.

Affirmed.

SUPREME COURT OF THE UNITED STATES

No. 21.—October Term, 1946.

Champlin Refining Company, Appellant, v. The United States of America and Interstate Commerce Commission.	Appeal from the District Court of the United States for the Western District of Oklahoma.

[November 18, 1946.]

Mr. Justice Reed, with whom Mr. Justice Frankfurter, Mr. Justice Douglas and Mr. Justice Burton join, dissenting.

This appeal brings into question the extent to which the Interstate Commerce Act covers pipe lines by virtue of the provisions of § 1 and § 19a.[1] Acting under the author-

[1] 49 U. S. C. § 1:

"(1) . . . The provisions of this chapter shall apply to common carriers engaged in—

"(b) The transportation of oil or other commodity, except water and except natural or artificial gas, by pipe line, or partly by pipe line and partly by railroad or by water;

"(3) (a) The term 'common carrier' as used in this chapter shall include all pipe-line companies; express companies; sleeping-car companies; and all persons, natural or artificial, engaged in such transportation as aforesaid as common carriers for hire. . . ."

49 U. S. C. § 19a:

". . . The Commission shall . . . investigate, ascertain, and report the value of all the property owned or used by every common carrier subject to the provisions of this chapter. . . . The Commission shall . . . make an inventory which shall list the property of every common carrier subject to the provisions of this chapter in detail, and show the value thereof as hereinafter provided, and shall classify the physical property, as nearly as practicable, in conformity with the classification of expenditures for road and equipment, as prescribed by the Interstate Commerce Commission."

ity of these sections, the Interstate Commerce Commission called upon the appellant, Champlin Refining Company, for reports deemed appropriate for it to make, if it is a common carrier under the act. The appellant challenged the Commission's order on the ground that it was not covered by the sections.

Champlin owns a pipe line for the carriage of oil or other similar commodity from its refinery in Oklahoma to various distributing points in other states. It carries no commodities except its own produced in its own refinery and delivered at the ends of the pipe line into its own storage or holding tanks for sale to its customers. It also is sole owner of the stock of the Cimarron Valley Pipe Line Company, admittedly an intrastate common carrier, that supplies the Champlin refinery with its crude oil. The Commission's orders for valuation reports do not treat Champlin and Cimarron as a unitary operation. The Commission, at this bar, disclaimed expressly any intention to test the subjection of Champlin's distributing pipe line to Commission power by Champlin's ownership of the Cimarron stock. As the Court treats the situation as though Champlin's distributing pipe line, between the refinery and the sale tanks only, were involved, we accept for the purpose of this dissent the Commission's view of the test to be applied to Champlin.

Section 1 of the act applies its provisions to "common carriers engaged in the transportation of oil" or similar commodities. In *The Pipe Line Cases*, 234 U. S. 548, and *Valvoline Oil Co. v. United States*, 308 U. S. 141, this Court interpreted the term "common carrier" to include all interstate pipe-line companies that are engaged, within the purview of the act, in the transportation of oil. In these cases, pipe-line companies that carried only their own oil, although all or a large part of it was purchased from producers prior to its carriage in the pipe lines, were held common carriers within the meaning and purpose

of the act, though not common carriers in the technical sense of holding one's self out to carry indiscriminately all oil offered, because the act's evident purpose was to bring within its scope all pipe lines that would carry all oil offered "if only the offerers would sell" at the carrier's price. In the *Valvoline* case, this interpretation of the 1906 Act, 34 Stat. 584, was found to have been carried into the act, as amended in 1920, 41 Stat. 474, despite certain changes in language. 308 U. S. at 145.

It is to be noted, however, that the *Pipe Line* and *Valvoline* cases did not bring within the scope of the Interstate Commerce Act all pipe lines that carried oil to [illegible] the companies were common carriers in [illegible] made them so in form. Those pipe lines held covered by the act in *The Pipe Line Cases* and *Valvoline* were found common carriers in substance because they purchased and carried all oil offered. The Interstate Commerce Act continually has required such carriers to be engaged in the transportation of oil or other commodities. In *The Pipe Line Cases*, a company, Uncle Sam Oil Company, though a pipe line carrying oil, was held beyond the act's reach because not engaged in the transportation of oil as a common carrier within the purpose of the act.

> "When, as in this case, a company is simply drawing oil from its own wells across a state line to its own refinery for its own use, and that is all, we do not regard it as falling within the description of the act, the transportation being merely an incident to use at the end." 234 U. S. at 562.

There has been no change bearing on this question in the applicable acts since *The Pipe Line Cases*. As a matter of statutory construction, we see no reason to change from this Court's long standing interpretation. If Congress desires to undertake regulation of the transportation of an interstate carrier, in substance a private carrier, it understands the method of approach. 49

U. S. C. § 304 (a) (3). There is no pertinent legislative history to support so broad an interpretation of pipe line legislation. The evil sought to be remedied was the mastery of oil through control of the gathering facilities.[2] If a line does not carry oil of others, it is not transporting within the contemplation of the act.

In the *Uncle Sam* case it was said that the transportation of oil from well to refinery was "merely an incident to use at the end." We see no difference between the use contemplated by the Uncle Sam Company and this company. Each carries its own oil for the same ultimate purpose—to reach the market.

Nor can we see any significant distinction from the *Uncle Sam* case in the practice of Champlin to use frequently the freight rate from Enid to the final destination as a measure of the addition to Enid refinery, f. o. b. price that it will charge at its distributing tanks. This practice is departed from to meet competition. Naturally some transportation cost must be added to the refinery price for deliveries elsewhere. How much it is or how it is calculated does not seem to us to bear upon the question of whether Champlin is "a common carrier engaged in the transportation of oil" within the scope of the act.

We would have a very different case than the one before us if Congress had provided that all owners of pipe lines carrying oil in interstate commerce should give appropriate information to the Interstate Commerce Commission. This is not what § 19a does. It requires reports only from "every common carrier subject to the provisions" of the act. When an enterprise is "subject to the provisions" of the act is defined by § 1 (1) (b) and § 1 (3). Therefore,

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[2] 234 U. S. at 558–59:

"By the before mentioned and subordinate lines the Standard Oil Company had made itself master of the only practicable oil transportation between the oil fields east of California and the Atlantic Ocean and carried much the greater part of the oil between those points."

it is not § 19a but § 1 that must be construed. The definition of § 1 flows not only into § 19a but also into various other sections. Once an enterprise is found to be included in § 1, the Interstate Commerce Act subjects it to § 19a and other provisions dealing with common carriers "subject to" the act. Thus, to give several instances, it must provide equal and reasonable transportation to all comers. (§ 1 (4)–(6)); and it must file a schedule of rates (§ 6 (1)). If, therefore, any doubt is felt about the applicability of some of these requirements, the doubts are properly to be taken into account in determining the scope of § 1. The range of servitudes to which this pipe line is subjected by including it in § 1 bears vitally upon whether such a construction should be given to § 1.

For the reasons detailed above, we do not think that Champlin is covered by the act and we would reverse the decree of the District Court.